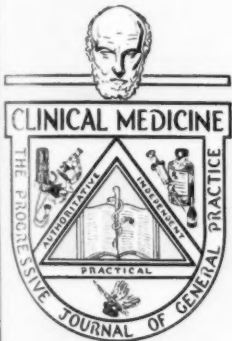


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**FEBRUARY
1941**

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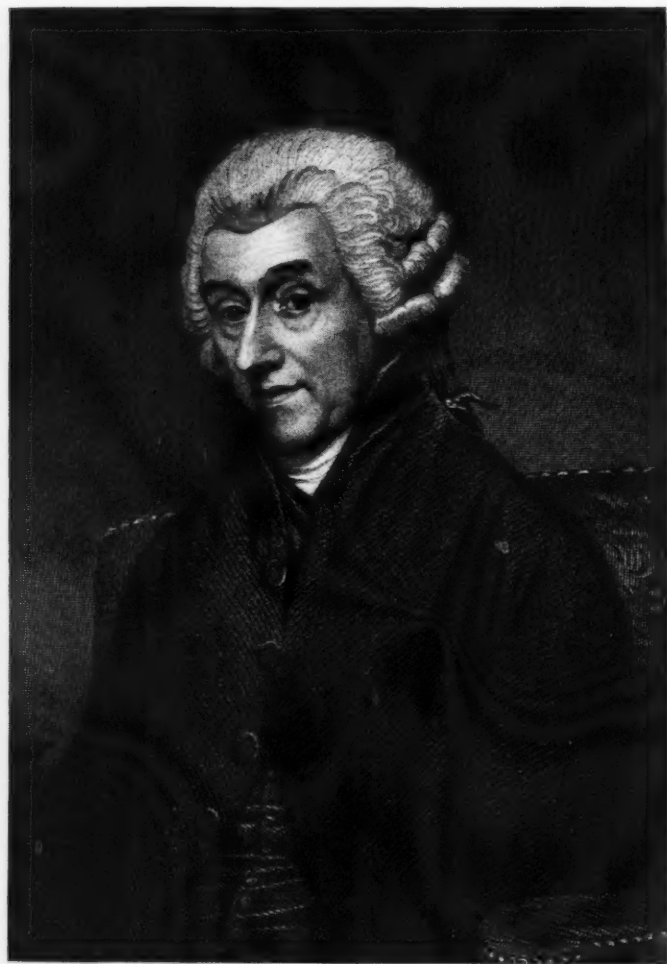
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Volume 48 ★ Number 2

FEBRUARY, 1941



Clinical Medicine

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★ Editorial ★

Dr. William Heberden

MANY medical men have gained fame because they have followed up some pet theory or doctrine tirelessly, zealously, and vociferously; but since the time of Hippocrates and Aretaeus the Cappadocian, there have been relatively few who have been content to watch and record meticulously the progress of disease processes and the results of treatment, without attempting to convert anyone to their ways of thinking or to gain a "following." Of this small group of intellectual and professional aristocrats was William Heberden, the elder.

The exact date of Heberden's birth, in London, England, in 1710, is not of record, but when he was 14 years old he was sent to St. Johns College, Cambridge, where he took his first degree in 1728, and his Doctorate in Medicine in 1739. He remained at Cambridge for ten years, practicing his profession and lecturing on *materia medica*. In 1746 he became a fellow of the Royal College of Physicians.

About 1750 he removed to London, where his personal charm and high professional and scientific attainments soon brought him an extensive and varied practice, to which he dedicated his immense talents for more than 30 years. He was so devoted to his patients that, when he was offered the position of physician to the Queen, he excused himself by pleading the need of those who had come to depend upon him, and nominated a

brother practitioner for the post. In 1769 he was elected a fellow of the Royal Society, and in 1778 was made an honorary member of the Royal Society of Medicine of Paris.

About 1780, Dr. Heberden retired from the heavy duties of his immense practice, and took up his residence at a home which he had purchased at Windsor, but he continued to see patients occasionally almost up to the time when, on May 17, 1801, he came to the end of his rich and useful career, at the ripe old age of 91 years. As in life he had been universally loved and respected, in death he was universally mourned.

Almost from the beginning of his professional career, Dr. Heberden was a close and keen observer of the clinical details which presented themselves in his patients, and he early formed the invaluable habit of jotting these down, at the bedside, in a pocket note book, which he always carried with him—a practice that was exceedingly rare in his day, and not nearly so common today as it should be. He never depended upon his memory for any facts that were not recorded in his note book. All this was in the ancient Hippocratic tradition, and Soemmering called him "*Medicus vere Hippocraticus*."

These conscientiously recorded notes, together with his immense erudition (he was one of the finest Latin, Greek, and Hebrew scholars of his time, and was well versed in astronomy and

meteorology), furnished the material for his fairly extensive writings, especially his most important and permanent work, "Commentaries on the History and Cure of Disease," which was written in elegant Latin and published, in that language and in an English translation, the year following his death. Garrison says of it, "This little book is one of the shining monuments of medical scholarship."

Heberden's first contribution to medical literature (1745) was an essay on the ridiculously incongruous composition of "Mithridate" and "Theriaca" (two fearful and wonderful concoctions of ancient lineage, containing 60 or 70 ingredients, which were popularly supposed to be good for almost everything), which cleared up the superstitions about them and banished them from the pharmacopeia forever.

He gave us some of the first (1767) and clearest descriptions of chickenpox, angina pectoris, nyctalopia or night blindness, and the nodules in the fingers which are seen in osteoarthritis ("Heberden's nodes"); and his "Commentaries" are full of clear and minutely accurate pictures of symptoms occurring in various diseases.

Of him, one of his contemporaries wrote:

"It is impossible to view the countenance of this excellent man, as delineated in his portraits, without an immediate respect, and even affection, towards his memory. The tranquillity of mind, the gentle benevolence, and the unaffected modesty which beam on every feature, represent with truth the amiable and unblemished ornament of the domestic circle; while the air of discernment and reflection which pervades the whole, announces with equal justice the genius for observation, and the power of combining its results."

Any of us who can, in any considerable measure, deserve such a tribute, can look back upon a useful and inspiring life.

The most important addition which a superior understanding can contribute to the stock of medical knowledge, is not so much novelty, as truth.—"Lives of British Physicians" (1830).

Sidewalk Falls

WHEN someone falls on the sidewalk, we consider it a decidedly minor mishap, and it will astonish many (even physicians) to learn that 1,800 people die every year, in this country, as a result of such falls, while more than half a million are laid up with fractures, sprains, contusions, and other injuries caused in this way. In fact, there are twice as many non-fatal accidents of this kind as there are from being hit by automobiles.

Of these accidents, 38 percent result from slipping on icy or snowy sidewalks (and therefore occur during the three or four winter months); 20 percent from being more or less drunk; and about 20 percent from the infirmities of age, fainting, epileptic attacks, and other disease conditions. More than 60 percent of the victims are 60 years old or older.

Physicians will do well to warn their patients

and friends to keep the elderly members of their families off the streets as much as possible, when the streets are icy or snowy, and to clean these slippery substances off their sidewalks, in order to protect the relatives of their neighbors and other pedestrians. Also a word as to the advisability of watching where one is going may not be amiss, and the figures here quoted may make an impression.

He who lives without folly is not so wise as he believes.—LA ROCHEFOUCAULD.

Graduate Medical Education

IT is generally accepted that the training now given in our medical schools does not fit a man to enter upon the practice of Medicine unless it is supplemented by the practical experience gained during an internship, which should be closely correlated with undergraduate work and aimed at giving these working students adequate preparation to begin general, family practice or to undertake the further studies which are necessary before they can practice a specialty successfully. The intern's work should, therefore, lay special stress upon internal medicine, pediatrics, obstetrics and gynecology, surgical diagnosis, minor surgery, the management of emergencies, preventive medicine, disorders of the aged, and functional disturbances, not the details of specialized technics.

For those who are not content to exercise their talents as general clinicians, the next step is a *residency* in their chosen specialty, where they will spend a number of years in learning its basic sciences and their practical application. This is the beginning of true graduate education, and is highly important, but is not always given the close and intelligent attention it deserves, by the authorities of the hospitals in which the residencies are served, the result being that we have too many inadequately trained specialists, rather than a smaller number of those who can discharge their special functions in a way that will reflect credit upon their teachers and insure their own professional success.

Postgraduate education is, properly, study intended to keep a physician abreast of the newer developments in his chosen field of practice, but not to equip him to enter a new field. The type of such work must, of course, be quite different, for general practitioners, from that required by specialists. Here the various specialty boards must exercise their functions.

One of these boards—that for ophthalmology and otolaryngology—has taken a forward-looking attitude, and has begun its work with the residents in that specialty, not as a "correspondence course," but in a helpful and supervisory capacity.

Most residents are given an abundance of clinical work, but little information as to the scope and character of the basic studies with which it must be correlated, if the best results are to be obtained. This is where the Board comes in with

its nine-month home study course of reading in anatomy, physiology, pathology, physics, bacteriology, etc.

The course begins, each year, on August 1, and runs to the following April 30 (registration for the current course is now closed). The resident receives, on the first of each month, an outline of the ground to be covered during that month, with a bibliography of the necessary reading. At the end of the month he receives a set of questions, which he is expected to answer. These are marked, corrected, and commented upon, and constitute, in their totality, an examination, on the basis of which he is given, at the end of the nine months, a statement to the effect that he has or has not successfully completed the work outlined.

This seems to us a splendid idea, worthy of adoption by all of the specialty boards which have not already undertaken something of the kind.

Those who are actively interested in postcurricular studies of any kind, will do well to write to the Commission on Graduate Medical Education, 60 East Scott St., Chicago, Ill., for information as to how they may obtain copies of the Commission's recent and highly informative report.

The smallest undertaking is worth the pains of a good workman.—NIVERNAIS.

Facts and Principles

THERE is a very distinct and definite limit to the number of isolated facts which a man can remember. Some can, of course, remember more and some less, but each one of us has a limit in this direction, beyond which he cannot go.

Every fact which we know will help us just so far as it goes, and not a bit further. If the problem varies at all, the learning of a new fact is required to meet the situation.

Another point to remember is that, when we have acquired knowledge of a certain fact, there is no assurance that we know the *truth*. I see the sun rise in the east. That is a *fact*—but it is not the *truth*. Although my senses tell me that the sun moves upward, I must check this fact by my collateral knowledge and my reason, in order to arrive at the *truth* that it is the earth which moves, and not the sun.

But we are not limited in our mental scope to the acquisition of facts. We have the *power*—if

we have the desire and industry and patience — to familiarize ourselves with *principles*, and when we know one of these we are in a position to deduce any fact falling under it. For example: we have learned the principle that, in cases of severe arterial hemorrhage, we must place a tourniquet or a ligature between the bleeding point and the heart. From this principle we can deduce the fact of the proper location for our ligature in any case; without it we would be compelled to *memorize* the points for applying hemostasis concerning every principal artery in the body — an enormous task!

Time was when teaching consisted in forcing students to memorize large numbers of isolated facts. That day is, fortunately, passing—though by no means wholly past—and the newer pedagogic practice tends, more and more, to inculcate principles and encourage the students to apply them to the elucidation of the facts with which they come in contact.

If we would all spend as much time as possible in studying the *principles* of the science and art of medicine, we would all rapidly become more resourceful and efficient physicians and happier men, for we would be gaining that type of knowledge which is power and which leads, at last, to the achievement of Wisdom.

NEXT MONTH

Dr. Paul E. Craig, of Coffeyville, Kans., will discuss, in a thoroughly detailed manner (with illustrations), the advantages, disadvantages, and technique of the administration of spinal anesthesia.

Dr. William F. Greene, of New York City, will explain the physiologic mechanism of constipation, and present a method of treatment based upon these findings.

Dr. Allen H. Moore, of Doylestown, Pa., will report his experience with a simple and effective treatment of vaginitis.

COMING SOON

"Surgery in General Practice: A Symposium," by Members of the Faculty of the University of Minnesota School of Medicine.

"The Physician and Human Nature," by T. H. Maday, M.D., Chicago, Ill.



Picrotoxin in Acute Barbiturate Intoxication*

By

A. H. MALONEY, PH.D., M.D., LL.D. (HON.), Washington, D.C.

Professor and Head of the Department of Pharmacology, Howard University

The barbiturates (synthetic derivatives of urea), being relatively easy to obtain and, in overdoses, causing painless death in sleep by paralysis of the vital centers in the brain-stem, are rather popular with would-be suicides. Moreover, their intravenous use as anesthetics offers possibilities of toxic overdosing.

Picrotoxin, a non-alkaloidal derivative from *Cocculus indicus* (the berries of which are used by some primitive peoples for poisoning fish), stimulates the brain-stem powerfully and causes convulsions resembling those seen in strychnine poisoning.

Dr. Maloney shows how the pharmacodynamic action of the latter drug can be used to neutralize that of the former, and thus save lives.

WITH increasing clinical employment of barbituric acid derivatives, the danger of acute intoxication by those compounds has also increased. This condition is further aggravated by their easy accessibility to the laity in many places. With increasing lay knowledge regarding their good sleep-producing properties, as well as their effectiveness as life-destroying agencies, indiscriminate self-medication flourishes to the extent that barbiturates are becoming leaders amongst poisonous agents used for suicidal purposes, for criminal assaults, in accidental deaths, and in homicides.

Ever since our first reports^{1,2,3} on the antidotal effectiveness of picrotoxin in acute barbiturate intoxication, we have been recommending its clinical employment. Meanwhile, a great amount of experimental work has been going on. Thus, for the eight-year period between 1923 and 1931, the number of scientific reports on picrotoxin was 7, whereas, from April 1931 (when our first report was published) to 1939, the next eight-year period, the list has grown to 69. Arnett⁴ of Philadelphia, was the first to introduce picrotoxin clinically in the treatment of a case of barbiturate poisoning. Since this initial publication, we have been following, with interest, the course of events on this subject.

The data presented in this study were derived from two general sources: (1) current medical literature, 66 cases; and (2) direct communications in answer to a questionnaire sent to 200 care-

fully selected hospitals and interested clinicians in the United States, 54.

The Literature

Since Arnett's employment of picrotoxin clinically, many similar reports have appeared in the literature, particularly during the past five years.



Fig. 1:—*Cocculus indicus*

This literature, checked in the Quarterly Cumulative Index Medicus and the Index Catalogue of the Surgeon General's Library, has been carefully examined, from 1933 up to and including March 30, 1940.

In 1939 the Council on Pharmacy and Chemistry of the American Medical Association⁵ made a study of 27 cases of barbiturate poisoning, which they were able to find in the literature, in which picrotoxin was employed antidotally. It is the opinion of the Council that one of these cases was really not an instance of barbiturate intoxication and should be excluded. Of the remaining 26, 22 cases recovered "during the use of picrotoxin".

Lovibond and Steel,⁶ who reported a case that came under their care in *The Lancet*, were able to find only 24 cases up to September 1939, since the initial case by Arnett in 1933. Of this number they reported the successful recovery of 17, "and in the remainder life was manifestly prolonged".

Our report presents 66 cases of barbiturate intoxication, taken from the literature, in which

*From the Department of Pharmacology, School of Medicine, Howard University, with the assistance of Mr. Nathaniel O. Wallace, of the senior class.

picROTOXIN was used antidotally, with or without other supportive measures. Of this number, 11 ended fatally, leaving a total of 55 cases successfully treated. It will be noted that one of the largest known doses of barbiturate (500 gr., or 32

TABLE I
Cases Recorded in the Literature

Barbiturate	Cases	Recovery	Acute Death	Delayed Death
Barbital	6	4	1*	1—Denarcotized, but died next day.
Barb. & Pheno-barb.	4	2	1†	1—Denarcotized, but died 3 days later of pneumonia.
Pheno-barbital	13	10	0	3—All denarcotized. One died in 48 hours; one of broncho-pneumonia; one of pneumonia.
Amytal	17	16	0	1—Anoxia and cerebral edema.
Amytal & Phenobarb	1	1	0	0
Evipal & Pentothal	1	1	0	0
Nembutal	7	7	0	0
Barbital & Nembutal	1	0	0	1—Denarcotized, but died of hepatitis and pneumonia.
Dial	1	1	0	0
Unknown	5	3	0	2—Both denarcotized. One died in 45 hours; one died of pulmonary edema.
Not Given	10	10	0	0
Totals	66	55	2	0

Note: The record of the amounts of the barbiturates ingested and picROTOXIN administered show too much individual variation to be recorded.

*Died without awakening.

†Dienarcotized, but died of right-side cardiac failure 10 minutes later.

grams, of sodium-barbital), and the largest dose of picROTOXIN (2134 mg.), occur in the same case. This case had a fatal termination. The diagnosis, made at autopsy, was acute hepatitis and hypostatic pneumonia. PicROTOXIN and barbital were both discovered in the liver. This case was reported by Rovenstine⁷. In addition, he reported the use of massive doses in at least 6 other cases (960 mg.; 1060 mg.; 1220 mg.; 1391 mg.; 1590 mg.; and 1820 mg.). Table I presents the cases which we have found in the literature.

The Questionnaires

Knowing that more cases have been thus treated than those that were reported, we mailed questionnaires to 200 hospitals and clinicians whose experiences with barbiturate intoxication are fairly well known. On analyzing the replies received from these questionnaires, we found 54 additional cases in which picROTOXIN was employed. Of this number, 45 cases were successfully treated. Table II presents

the cases that were elicited through this questionnaire.

In our review, then, we have found a total of 120 treated cases, with a fatal outcome, from all causes, in 20. Of these 20 deaths, one was reported as of indeterminate cause; 3 appeared to have resulted from failure to offset the depression due, no doubt, to inadequacy of dosage; while 16 were attributable to various complicating factors following the stimulating action of picROTOXIN.

TABLE II
Cases Obtained Through Questionnaire

Barbiturate	Cases	Recovery	Acute Death	Delayed Death
Barbital	1	1	0	0
Amytal	1	1	0	0
Phenobarbital	3	1	0	2†
Nembutal	2	1	0	1†
Nembutal and phenobarbital	1	1	0	0
Unknown	13	10	2*	1†
Not reported	33	30	2**	1†
Totals	54	45	4	5

*One depressed; one, cause undetermined.

**Undetermined.

†Denarcotized, but died later of pneumonia.

A study of the individual histories, wherever given, indicates that, in the vast majority of instances, the degree of barbiturate intoxication was of such severity as to necessitate resort to the intravenous administration of picROTOXIN in 92 of the 120 cases. In many instances, small unit doses were given at repeated intervals, over a period of time depending upon the symptomatic results. Table III sets forth the various methods of administration actually employed.

TABLE III
Methods of Administration

Intravenously	83 cases
Intravenously and intramuscularly	5 cases
Intravenously and subcutaneously	2 cases
Venoclysis	2 cases
Intramuscularly	2 cases
Subcutaneously	7 cases
Not stated definitely	19 cases

Total

120 cases

In 24 instances, the only antidotal agency employed was picROTOXIN. In the other cases, various adjuvant drugs and supportive measures were also utilized. Table IV presents the number of cases, together with the agencies so employed.

TABLE IV

Other Agencies Employed with PicROTOXIN

PicROTOXIN alone	24
5% dextrose in physiologic saline solution	13
Caffeine sodium benzoate	6
Gastric lavage and 5% dextrose in phys. saline	8
Intravenous fluids, O ₂ , CO ₂ , and strychnine	5
Gastric lavage alone	4
Intravenous dextrose, caffeine, sod. benz., and ephedrine	4
Metrazol	4

Coramine and O ₂	3
Dextrose and adrenalin	3
Caffeine, ephedrine, strychnine, and Benz- zedrine	3
Lavage and caffeine sodium benzoate	2
Coramine, caffeine, and 5% dextrose	2
Coramine and Metrazol	2
Coramine	2
Magnesium sulfate	2
Gastric lavage and ephedrine	1
Strychnine	1
Strychnine and dextrose intravenously ...	1
Ephedrine, Coramine, and strychnine	1
Physiologic saline, dextrose, and oxygen ..	1
Caffeine and strychnine	1
Caffeine sodium benzoate, lavage, and ephedrine	1
Lavage, Metrazol, Coramine, and dextrose intravenously	1
Coramine, dextrose, Metrazol, Benzedrine, sulfapyridine	1
"Cardiac stimulants," general	24
Total	120

Certain responses to our questionnaires indicate unmistakably that these cases which we have succeeded in gathering do not by any means represent the total number of cases of barbiturate poisoning in which picrotoxin was employed in the course of treatment, even from the agencies canvassed, for many questionnaires were returned with the comment that the cases are too numerous to take time to analyze them in order to elude the information requested.

These considerations prompt me to set forth a routine schema of management, the general adoption of which, I feel sure, would make for more satisfactory results. (See also, Volpitto⁸ and Bleckwenn and Masten⁹.)

Outline of Treatment

- 1.—Gastric lavage, using sodium phosphate solution leaving some of it in the stomach following lavage. This tends to hasten excretion of the poison.
- 2.—Purgation or enemas, or both. (The barbiturates tend to cause constipation by reducing intestinal peristaltic action).
- 3.—Indwelling urethral catheter. (The barbiturates tend to produce atony of the urinary bladder).
- 4.—Promotion of diuresis by intravenous injections of 5-percent dextrose solution, which also helps to replenish energy and to prevent acidosis and edema. Physiologic saline solution, enough to prevent dehydration but not enough to produce edema, may be added.
- 5.—Endotracheal intubation, to insure patency of the upper respiratory passages.
- 6.—Oxygen administration, to prevent anoxia and to overcome cerebral anemia.
- 7.—Protection against heat loss from undue exposure.
- 8.—Moderate Trendelenburg position, to promote cerebral circulation.
- 9.—Intravenous injection of picrotoxin, 1 cc. of a 1:1000 solution per minute, until return of the pupillary and corneal reflexes, avoiding convulsions.
- 10.—Special nursing care and constant supervision.

Jacobi and Roemer¹⁰ have stated that toxic doses of barbiturates directly damage the capillaries, predisposing to circulatory complications, especially

when the narcosis has been of long standing. Rovenstine⁷ claims to have elicited prompt denarcotization without untoward effects with the use of large doses. Our conviction is that the optimal dose, in severe poisoning, is not the denarcotizing dose, but rather the dose which produces a state of mild stimulation, followed by additional doses, at graded intervals, just adequate to maintain this state. A dose beyond this level is likely to be convulsive as well as toxic on its own account, and both conditions kill.

Summing up the beneficent effects of picrotoxin, Kohn, Platt, and Saltman¹¹ state that it produces no blood pathosis, and it combats cerebral and medullary depression and pulmonary complications. As to the antidotal effects of picrotoxin, Krantz, Carr, and Beck¹² have suggested that this drug increases the oxygen consumption, which has been decreased by the barbiturates.

Without exception, all those who have had actual experience with picrotoxin have reported favorably on its antidotal value in the condition indicated. In addition to the shortening of narcosis, combating of circulatory embarrassment, and decreasing of pulmonary complications, they have also attributed to its life-saving efficacy.

Summary

- 1.—The clinical employment of picrotoxin in the treatment of 120 cases of barbiturate poisoning is here reported.*
- 2.—Of these cases, 100 recovered in the course of treatment with picrotoxin, while 20 died from various causes.
- 3.—Of the 20 fatalities, 6 died acutely (one from right-side heart failure; 3 from undetermined causes; and 2 from depression), and 14 died from complications, chiefly pulmonary.
- 4.—The efficacy of picrotoxin has been generally attested by all those who have had experience with its use in severe barbiturate poisoning.

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*There have come to my attention, since this paper was written, 48 additional cases, 40 of which recovered, and 8 died. Of the 8, 1 died of aspiration pneumonia; the cause or causes of death in the other 7 cases were not given. The average amount of picrotoxin administered was 132 mg. per patient. Supportive measures included saline and dextrose solutions, Coramine, atropine, caffeine, strychnine sodium benzoate, ephedrine, ipecac, magnesium sulphate, and gastric lavage.

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Howard University.

The Mechanism of Hypertension and its Treatment with Synergistic Drugs

By

JAMES M. TARSY, M.D., Brooklyn, N.Y.

One reason why the treatment of hypertension is often unsatisfactory is that too little attention and thought are given to its cause. Dr. Tarsy sketches its physiologic basis and suggests a treatment that seems rational and is worth trying.

REFERRING to the mechanism of abnormal blood pressure, Stieglitz¹ states that anything which persistently irritates the arterioles may start the development of arterial hypertension. Once initiated, the vicious cycle of arterial fatigue perpetuates its existence, and the hypertension thus continues, in spite of the absence of the initial factors which brought it into existence.

Hypertension, in its initial stages, is not organic in origin nor due to any fixed causes, but to spasm of the arterioles, the walls of which consist chiefly of spirally arranged, smooth muscle fibers, under direct control of the sympathetic nervous system.

Constriction, according to Stieglitz, is dependent upon the constant flow of impulses along the sympathetic fibers to the smooth muscle of the arterial walls. Fluctuations in the intensity of these stimuli, and in the resultant vascular tone, influence the diastolic tension. The entire apparatus is to some degree dominated by a medullary center, both through the cord and through the vagus nerve.

The continued existence of the causes inducing hypertension eventually results in permanent narrowing of the arteriolar walls. The steps in the sequential development of organic arterial disease may, therefore, be outlined as follows:

1.—Muscular irritation of the arterial wall, with practically continuous arteriolar hypertonicity.

2.—Hypertrophy of the medial arterial wall, plus more spasticity.

3.—Perpetuation of the process and exhaustion of the cells, resulting in fibrotic replacement of the muscle.

Among the etiologic factors of arterial hypertension, emotional instability is considered one of the most important. Any factor which induces, maintains, or increases emotional instability should, therefore, be eradicated in the ideal treatment of this condition. Among the other factors in the formation of this abnormal mechanism in hypertension, age, obesity, fatigue, and toxicosis perhaps play the greatest part.

Aside from emotional instability, the most frequent concomitant of arterial hypertension is obesity. The fact that the mortality rate from vascular accidents is $2\frac{1}{2}$ times greater in the obese than in those of normal weight is significant in itself. In this study of the mechanism and treatment of hypertension, the rôle of obesity in hypertensive disease was further illustrated in a survey of 100 cases (Table I and Chart I).

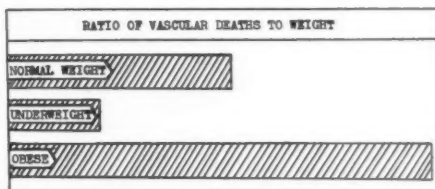
TABLE I

100 CASES OF ARTERIAL HYPERTENSION WITH OBESITY						
Age		Size-Averages			Blood Press. Averages	
Range	Average	Height	Weight	Over-weight	Systol.	Diastol.
40-70	61.3	5'2"	175.5±	37±	211.5	110

The degree of overweight, illustrated in this table and chart, was calculated according to the standards of height and ideal weight found in actuary tables.

The relation of vascular disease to obesity is a natural one. Obesity not only imposes an abnormal load upon the heart itself, but upon every structure of the body. The result is an ever-increasing peripheral resistance, which the already overburdened heart must overcome, finally ending in cardiac exhaustion and death.

CHART I



Treatment of Hypertension

The treatment of hypertension should be directed toward the elimination of those factors which induced it in the first place. Reeducation of the patient's mental and emotional reactions is of basic importance. Reduction of weight, if properly controlled, will cause a coincident reduction of hypertension, and also tends to reduce the increased metabolic rate often found in obesity, which is the reflection of overwork imposed upon the body economy.

Aside from these measures, treatment should also aim at the elimination or control of any factor which may act as the underlying cause in the production of hypertension. In short, the rational treatment should be based upon three fundamental principles:

1.—Eradication of suspected etiologic factors.

2.—Adjustment of the patient to his environment, in accordance with his mental and physical limitations.

3.—Interruption of the vicious cycle of factors inducing hypertension.

Among the most important *etiologic factors* are focal infection; improper dietary habits (over-alimentation, the use of spicy foods, etc.); chronic intoxications (alcohol, tobacco, intestinal putrefaction, metallic poisoning, etc.); and glandular imbalance (menopause, thyrotoxicosis, etc.).

Since there is a variation in the mental and physical ability of individuals to meet the daily requirements imposed upon them, *each individual's life should be adjusted according to the limitations of his personality.*

The struggle for existence in a competitive mode of life is inevitable. Some individuals are eventually able to effect a readjustment to constantly changing demands, with little injury to themselves; the incapability of others eventually leads to mental anxiety, emotional imbalance, and physical strain. In this latter type, a vicious cycle, in which hypertension itself is an important factor, is thus created.

that of the bromides, but followed by less-frequent undesirable side-actions².

The presence of theobromine, in the form of the more soluble double salt, theobromine-sodium salicylate, enhances the vasodilatative effect of phenobarbital and carries with it various cardiac stimulating and diuretic properties which are distinctly beneficial.

According to Solis-Cohen,³ the most important action of phenobarbital, apart from that exerted on the central nervous system, is its effect on the smaller blood vessels. Its administration is followed by dilatation of the vessels of the skin, leading to sweating and a fall of temperature, and also by dilatation of the renal and abdominal blood-vessels.

Results

Table II shows that the best obtainable conditions (rest, weight reduction, psychic considera-

TABLE II

Results Obtained in 100 Cases of Arterial Hypertension					
Blood Pressure Before Treatment		Reduction Effected Without Drugs		Further Reduction Obtained with Diuribital	
Av. Syst.	Av. Diast.	Av. Syst.	Av. Diast.	Av. Syst.	Av. Diast.
211.5 mm.	110 mm.	186.3 mm.	100.2 mm.	160.4 mm.	90.3 mm.

The physician's responsibility, in such cases, lies in the re-education and the readjustment of the patient's mental reactions and physical potentialities to meet the demands imposed, with as little strain as possible. In such instances, the cardiac patient, in particular, should receive proper medical care and, coincidentally, should be taught what his physical limitations are.

Stieglitz makes a great point of the *cycle of hypertension*, and states that omission of the interruption of this cycle permits recurrence and progression of the disease processes inducing hypertension, regardless of other measures adopted.

Use of Drugs in Synergistic Combination

In view of the importance of this self-perpetuating concept of hypertension, it was considered a distinct advantage to begin treatment, in the 100 cases of obesity associated with hypertension which form the clinical material in this paper, by the administration of a selection of sedative drugs, so combined as to effect an interruption of this cycle at its source.

This sedation was found to serve a two-fold purpose: (1) in controlling the psychic factors, as illustrated in the emotional crises so frequently found in high-strung, neurotic individuals; and (2) in controlling the arteriolar spasm.

Choice of a preparation that could be administered over a prolonged period without irritative side-effects, was important. These requirements were finally met in Diuribital⁴, which is a combination of theobromine-sodium salicylate with phenobarbital and calcium lactate, in an enteric-coated tablet. The enteric coating was particularly desirable in eliminating the usual irritative effects of alkaloidal theobromine on the gastric mucosa.

The action of phenobarbital in excitement of the nervous system is well known, and is similar to

tions, etc.), alone, did not produce a satisfactory reduction of blood pressure. In these cases Diuribital further reduced the systolic blood pressure an average of 19.9 mm., and the diastolic pressure an average of 9.9 mm.

All patients in this series received the same doses of Diuribital: 2 tablets, 3 times daily, for a period of from 3 to 4 weeks. One tablet, 3 times daily, was given as a maintenance dose thereafter, for a period of 6 months. The reductions effected were slow and sustained and were unaccompanied by undesirable or untoward reactions, which sometimes follow a too-sudden fall of pressure.

There were individual instances in which the blood pressure remained well above the normal, in spite of rest and other measures. This occurred in patients in whom the condition was complicated, chiefly, by cardio-renal involvement, and in whom it was considered improper to effect further reduction.

The response obtained in this group forming the basis of this study remained manifest over a control period of six months. Temporary rises were usually due to an infraction of therapy on the part of the patient. No deaths occurred.

Conclusions

As a means of controlling the psychic and neuromuscular factors in the mechanism of arterial hypertension, Diuribital (Grant), a combination of theobromine-sodium salicylate with phenobarbital and calcium lactate, was employed in the form of enteric coated tablets.

In a comparative study of a group of 100 cases of hypertension, the results obtained with combined therapy (removal of foci of infection, diet, psychic readjustment, and rest, *plus* the drugs here mentioned) were found to be definitely superior.

The hypotensive response in 100 cases treated was effective, gradual, and sustained in character, as well as free from the usual irritative effects coincident with the continued use of this form of therapy.

⁴The supply of Diuribital was made available through the courtesy of the Grant Chemical Company, Inc., New York City.

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Progress in the Treatment of Low Back Pain

Part II

By

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Pathologic Findings

Dr. A. C. Carmichael, of Cedar Rapids, Iowa, in his "buried fissure" operation, where local findings suggest trouble in this region, has found that biopsy examination of tissue removed near the tip of the coccyx reveals a low-grade inflammation with a few giant cells, suggesting a low-grade infection (probably amebic), superimposed upon an area of devitalization, trauma, or lowered resistance in the region of Luschka's gland.

Roentgenologic pictures, in chronic cases, often reveal arthritic exostoses on the transverse processes of the lumbar vertebrae, the crest of the ilium, and the sacro-iliac joint.

Ameba histolytica or *Ameba intestinalis* are common secondary agents in aggravating an old area of lowered resistance. Rectal findings of mucus, hemorrhagic seeping at the end of the proctoscope, and a petechial rash, suggest an old amebic infection. Stools with negative findings for amebas or cysts are not necessarily diagnostic. Cysts were found on the 26th day of daily examinations with 25 preceding negative stools, from one of my patients.

Channels or pockets, which are formed painlessly and may or may not be accompanied by itching as they try to head through the skin, are usually amebic in origin. The liquid-like oozing of the digesting ameba through the tissues is the most common aggravating factor in a Luschka's gland inflammation. External evidences, as shown in the illustration, always indicate proctitis. Acute flare-ups indicate a secondary staphylococcal or streptococcal invasion of the previously formed amebic channel.

Symptoms

Patients using a vague sweep of the hand along the lower back, hip, or thigh, to describe discomfort, are designating deep lesions, usually in the rectum. Specific tenderness, in the sacro-iliac joint or hip, is almost routinely due to a Luschka's gland involvement, as is also true of the following specific symptoms:

- 1.—*Coccygodynia* or *coccyalgia*, shown as an actual pain or as nervousness or discomfort after sitting for a short period.
- 2.—*Acute or mild sacro-iliac joint discomfort*, due to a psoriasis, or an irritation of the superior gluteal nerve, which passes around this notch.
- 3.—*Deep-seated lumbosacral tenderness* may be evident as a "lumbago" that is bothersome only after the patient straightens up after bending

over for a period of time, but produces little discomfort in subsequent activity. *Inability to sit for continuous periods*, as in moving picture shows, lectures, driving a car, etc., or to straighten up after operating surgically, washing in tubs, or other operations requiring a bending position, usually are indicative of a Luschka's gland inflammation.

4.—*Hip discomfort*, associated with a point of tenderness over the pyriformis muscle along the upper margin of the gluteal muscles, in the mid-scapular line.

5.—*Sciatica*, associated with lumbosacral or gluteal tenderness.

6.—*Discomfort in the muscles* on the median or posterior aspect of the thigh.

7.—*Afternoon or night fatigue of the legs*, with a moderate degree of edema and no associated lesion to account for the extreme symptoms.

8.—*Pain in the heels*, with no palpable points of tenderness.

9.—*Tension up the back* and between the shoulders, associated with low-back or coccygeal discomfort. Nervous headache may be present. *Discomforts are aggravated by the use of irritating types of cathartics*, such as phenolphthalein and cascara.

10.—*Deep-seated tenderness* in the side of the abdomen, over the anterior margin of the quadratus lumborum muscle, more commonly found on the right side.

11.—*Dysmenorrhea*, where palpable tenderness is felt over the levator ani muscle.

Rectal suppositories or 5 cc. of a topical anesthetic, such as Diothane hydrochloride, 5 percent, instilled into the rectum through a No. 12 F. catheter, moderately relieves conditions due to rectal disorders.

Treatment

Patients with small gluteal muscles can be palpated for tenderness alongside the coccyx, and treated while lying face downward, with the legs held apart. Where heavier gluteal muscles are present, it is advisable to have the patient lie on the side, with knees drawn up (Sims' position), for examination and treatment.

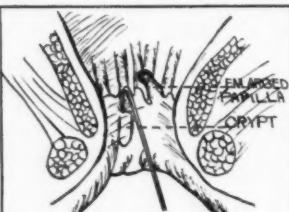
Where tenderness is present in or near the coccyx, always use a proctoscope and look for an associated proctitis, hemorrhoids, cryptitis, enlarged papillae, or other rectal lesion.

Any solution that will produce a localized pH,

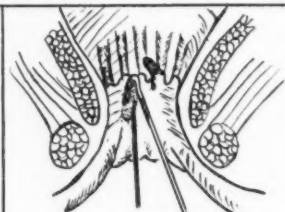
ASSOCIATED PATHOLOGY



COCCYGEAL SINUS OR CYST



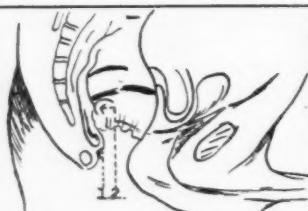
PAPILLAE OR CRYPT



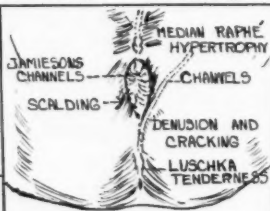
REMOVING CRYPT

A cyst on the inner curvature of the coccyx or a sinus to the skin from the outer side is gross evidence of trouble. Rectal crypts located with a crypt hook should be infiltrated with QUINOCAINE³ and opened. Enlarged papillae should be removed surgically.

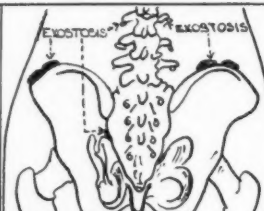
LOCAL FINDINGS



ASSOCIATED AREAS OF TENDERNESS



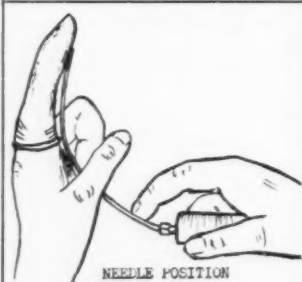
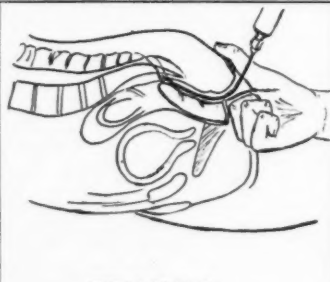
EXTERNAL FINDINGS



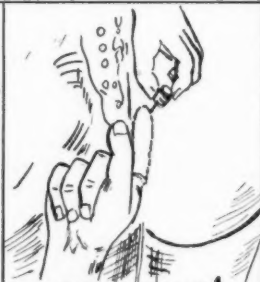
X-RAY FINDINGS CHRONICITY

Tenderness between the sphincter muscles (1) or a tense or tender area alongside the coccyx (2) is indicative of a Luschka's gland involvement. Visual evidence and findings shown in drawing 2 always denote pathology within the rectum. Roentgenological pictures of chronic cases may show arthritic exostosis.

TREATMENT

NEEDLE POSITION
IN RECTAL APPROACH

NEEDLE IN PLACE



EXTERNAL APPROACH

Using a 20-gauge, 4-inch needle, or 21-gauge, 3-inch needle, support the needle as shown in figure 1, pass to tender area as in figure 2; and enter it with needle point. Inject 2½ cc. of a QUINOCAINE and FORMO-QUINOCAINE mixture. Repeat on opposite side of coccyx. The external approach is made with one finger in rectum over tender area, and a 22-gauge, 2-inch needle is passed through the skin to the tender area and injected as described previously. Repeat on opposite side. Treat once or twice weekly.

reduce inflammation, stimulate the lymphatic circulation, be germicidal in its action, and will produce anesthesia with subsequent relaxation, is effective when injected into the tender areas at or near the coccyx. The alternative procedure would be a surgical opening from the anococcygeal tissues to the tip of the coccyx in order to establish drainage, and surgical packing to produce localized traumatic acidosis. Hot packs are

occasionally used over the area of operation, to aid in overcoming the inflammation.

The injection approach is simpler and more direct in its action, and should be tried first in cases with low back pain.

The internal approach is as follows:

1.—Protect the palpating finger by means of a finger cot or a rubber glove; pass the finger

through the anal canal to the palpable margin of the levator ani muscle, alongside the coccyx; feel for areas of tension and tenderness at both sides of the coccyx; after tender points are identified, withdraw the finger.

2.—Fill a 5 cc. syringe, to which is attached a 20-gauge, 4-inch needle, with equal parts of Quinocaine⁶ and Formo-Quinocaine⁶.

3.—Protect the needle point with the fleshy end of the palpating finger and hold the needle fixedly along the finger by having the syringe firmly held in the other hand, with the index finger applying a compressing pressure near the hub of the needle (see drawing).

4.—Pass the needle and finger through the anal canal to the palpable area of tenderness; push the needle off the finger, to enter the first point of resistance felt; and inject 2.5 cc. of the solution.

5.—Draw the needle point back on the finger tip, direct it to the opposite side of the coccyx, and repeat, using the remainder of the solution.

6.—Repeat once or twice weekly, until all palpable tenderness and tension are gone.

There is no danger of producing an abscess or slough, if an aqueous germicidal solution is used.

The external approach⁴ is as follows:

1.—Palpate for tenderness, as just described.

2.—Fill a 10 cc. syringe, to which is attached a 22-gauge, 2-inch needle, with 5 cc. each of Quinocaine and Formo-Quinocaine.

3.—Place the palpating finger inside the rectum, over a tender area alongside the coccyx; pass the needle through the skin alongside the coccyx and direct the point toward the tip of the palpating finger; enter the tissue palpated and distend it with 1 or 2 cc. of the mixture; withdraw the needle from the deep structures, but *not from the skin*, and infiltrate the tissues *near* the tender area, using a total of 5 cc.

4.—Repeat on the opposite side of the coccyx, through a similar skin puncture and routine.

5.—Repeat once or twice weekly until the tenderness and tension are gone.

In cases of low back pain, look for a Luschka's gland involvement and examine the rectum through a proctoscope for further lesions.

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THE END

Body Chemistry in Surgery

By

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Doctor Cooke

Since chemistry is the basis of all physical life activities, it is of vast importance in connection with all human disease states.

In this paper, Dr. Cooke discusses a few of the chemical reactions which are of prime importance in all surgical cases.

IT IS admitted that civilization has advanced more in the past 50 years than in any other like period since the Dark Ages. This advance has been made mostly in the field of science, where chemistry has probably given us most. Strange to say, Medicine has been extremely lacking in the true recognition of the part that chemistry plays, and surgery has, until lately, been almost oblivious to the importance of chemistry in that branch of Medicine. It is only now that we are opening our eyes to the many failures on the part of mechanical aids, because of abnormal chemical conditions.

The Acid-Base Balance

For instance, the acid-base equilibrium is not yet fully appreciated and is far from being universally considered. The tendency to acidosis has long been recognized, and more recently alkalosis has also been recognized as a common and serious condition,

yet few surgeons, before operation, make any preparation to maintain this delicate equilibrium.

We know that the carbon dioxide combining power of the blood is markedly reduced when the pH is low. The high-protein and condiment-containing diets which people too frequently use make the majority of patients show excessive acidity of the urine, and these acids in the body must be eliminated or neutralized. The sudden restriction of foods in surgical cases, especially when accompanied by anesthesia and restricted fluid-intake, tends to increase this acidosis and diminish the alkali reserve. This is shown by the fact that, when the urine has been made alkaline previous to operation, the patient stands the anesthesia better, shows less shock, and has a smoother convalescence following operation.

In an emergency, the general practitioner and internist can help the surgeon by attending to this situation while getting the patient to him, but in elective cases, the surgeon himself should certainly consider and attend to this phase of the patient's condition, in his preparation for an operation. Unless the patient shows a definite tendency to alkalosis, a few doses of sodium bicarbonate, 24 hours before operation, will not be amiss and may be a very beneficial procedure.

Deficiency of Glycogen

Another condition which often affects the results of surgery, sometimes seriously, is a deficiency of glycogen. This is most often encountered in certain children who have a marked increase in lymph-

oid elements and are prone to faint on slight provocation. Many of these children do not tolerate anesthesia well, and occasionally they die when anesthetized for a tonsillectomy.

It has been found that these patients will tolerate ether remarkably well if they have been fed a diet rich in sugars for 48 hours previous to operation. One cannot always tell when this will be a life-saving factor, but unless a child shows a tendency to diabetes, it would not be amiss for the family physician to advise, in most cases, that some chocolate candy be given to the child a day or two before the anticipated tonsillectomy.

Surgeons are fully aware and thoroughly active in preparing patients with hyperglycemia for surgical procedures by giving insulin, but few are taking the blood sugar into account routinely, yet many cases of so-called surgical shock are due to hypoglycemia, and the rôle played by intravenous injections of dextrose has been more an empiric dispensation than a scientific procedure.

It cannot be denied that the best way to administer any body necessities is through nature's normal channels. This would indicate that patients had better be advised, while able, to take their sugars by mouth and prevent the sometimes fatal shock that follows surgical procedures, than wait until they develop insulin shock, and then try to relieve the abnormal condition by the administration of sugar in an abnormal way. Here again, the internist or family doctor can be of material aid to his patient by considering these factors before he depends on the surgeon for a purely mechanical aid.

The Water Balance

We can never get away from the importance of the water-loss that occurs following operation or any highly disorganizing injuries, which are becoming more and more frequent. We are becoming more alert in combating water-loss following operation, and many measures can be instituted which will limit this loss. First, of course, is minutely detailed efforts in controlling hemorrhage. This is usually thoroughly accomplished, and needs no comment. However, I believe that too little attention is paid to the water-loss due to evaporation of excessive perspiration during an operation. This is lessened with spinal and other non-inhalation anesthetics.

It is a bad habit to leave unduly large areas of skin exposed to the air. The body surfaces should be thoroughly covered, even in warm weather, and all water loss from evaporation prevented as far as possible, as well as the marked heat loss that occurs

from excessive evaporation. This may be apart from the subject of chemical factors, but its mechanism is controlled through chemical action and must not be forgotten or overlooked.

The heat center is probably one of the most active mechanisms in the body, and it requires a severe injury to produce hypopyrexia, because the heat center has a great capacity of increasing oxidative processes in the generation of heat. This may be the cause of carbohydrate insufficiency and excessive fat metabolism, with the resultant incompletely burned fat residues, which are fatty acids and are an important factor in producing acidosis.

This will become more apparent when we remember that the metabolism of fats produces heat in the body, but that the fats are burned in the flame of the oxidizing carbohydrates. In this light one can see the great importance of keeping the patient thoroughly covered and warm during an operation, in addition to the importance of maintaining the body temperature from the standpoint of shock. Some years ago, Crile advocated keeping the liver heated by diathermy during an operation, to prevent subnormal temperature, but he did not explain fully all of the chemical factors involved.

After an operation, one of the best ways to prevent regurgitation of stomach contents is to leave the stomach empty. This may account for the fact that many surgeons insist that nothing be given by mouth following an operation; but it is my opinion that only immediately after an operation should a patient be deprived of water. Many times, the first fluids given after an anesthesia may be regurgitated, not only without harm, but they may dilute and eliminate much of the gastric chemical contents that is of no value. After this initial vomiting, the patient may be able to take fluids freely, by mouth, in sufficient quantities for all practical purposes. Unless an intestinal operation has been performed which contraindicates the administration of water purely for a mechanical reason, I believe that it will rarely be amiss to order water freely when the patient desires it.

The chemical problems, considered so briefly here, represent only a few of the almost indefinite possibilities. However, it behooves every member of the profession, regardless of the specialty he represents, to give more and more consideration to the scientific application of medical knowledge, and this can best, and will finally be brought about completely (except in traumatic and plastic or corrective surgery) by knowing and applying a proper knowledge of chemistry to the human organism.

226 Nissen Bldg.

The Injection Treatment of Hemorrhoids*

By

JAMES K. ANDERSON, M.D., F.A.C.S., Minneapolis, Minn.

The injection treatment of hemorrhoids is now pretty well accepted, for selected cases, and many physicians use it; but even those with wide experience, as well as beginners with this method, will welcome Dr. Anderson's detailed and informal hints as to the selection of cases and the fine points of technic.

INTERNAL hemorrhoids only should be injected. The solution should be injected outside the hemorrhoidal vessels, so that the resultant fibrosis will obliterate the vessels, and should never be made into the vein, as is done in treating varicose veins.

The restless, worried type of patient, who will not keep still long enough to permit an accurate, complete examination and series of injections should not be treated in this manner, as results will be poor.

*Presented to the Postgraduate group, University of Minnesota, Mar. 11-16, 1940. Abstract by R. L. G.

A flat fee should be charged, regardless of the number of injections needed, and the patient instructed that treatment will be given until the physician tells him that he is well. Otherwise, the patient often feels improved after a few injections and does not return. The inevitable recurrences prejudice him against the method and the physician. If no extra charge is made for further injections that might be needed, the patient will feel that the physician has his best interests at heart when he tells him to keep coming back.

Honestly tell the patient that most internal hemorrhoids can be cured by the injection treatment, but that external hemorrhoids, skin tags, and other lesions can not, and let him decide as to their removal.

Never inject below the line of junction of the rectal mucosa and the squamous lining of the anal canal. *Skin should never be injected.*

Differential Diagnosis

External Hemorrhoids	Internal Hemorrhoids
1.—Rarely bleed.	1.—Frequently bleed.
2.—Constantly protruded. (Anal type evert; never come out).	2.—Protrude only with bowel movement.
3.—Painful when thrombosed.	3.—Painful only when strangulated, protruded, or infected.

The injection treatment does not remove the hemorrhoid. Instead, the mucosa is "glued" to the connective tissue beneath it by fibrosis and scar tissue.

Do not inject large (walnut-size), pedunculated, thrombosed, or indurated hemorrhoids, as nature is endeavoring to cure these latter types. The best size for injection are those the size of the middle finger tip, or smaller.

After injection, the hemorrhoid becomes hard from chemical edema. Do not inject it again until the lump has disappeared.

Technic

Any office that is at all well equipped will have instruments that may be used in injecting hemorrhoids, so that one does not need any new instruments. The injection may be carried out through any short proctoscope.

The larger the hemorrhoid, the larger the amount of solution needed. Older patients should be injected with smaller amounts. If oily solutions are to be used, from 4 to 8 cc. is the proper amount. Quinine and urea hydrochloride should be used in doses of 0.5 to 1 cc., and sodium morrhuate should be given in similar doses, for 1 hemorrhoid.

Where to inject: If protrusion is the chief complaint, inject at the upper pole of the hemorrhoid and usually it will not come down again (after from 1 to 3 injections it will not protrude at all). If bleeding is troublesome, inject into the hemorrhoid beneath the mucosa, but not into the vessel (aspirate before making the injection). The distension usually checks the bleeding temporarily, and the resultant edema and fibrosis often stop it permanently.

Number of areas to inject: If the patient is a poor risk, only one area should be injected at a time; if a good risk, two areas may be treated.

Intervals: Two injections may be given within 5 days; then at weekly intervals. *Feel the area of the previous injection; if it is indurated, do not inject there.*

Number of injections: Usually it takes five injections to obliterate each hemorrhoid, and from 12 to 20 injections to sclerose an ordinary group of hemorrhoids.

Reactions: (1) Slight pain may be felt on the mucosa side; (2) fullness and a sensation of heat may be felt at once, and last for a minute or two; (3) burning that continues for some minutes (if the injection has been made too low, the patient will be uncomfortable for some time); (4) a sensation as if a ball were in the rectum, which may last for 2 or 3 hours, but is relieved by a hot-water bottle or bath, and avoidance of social engagements; (5) vertigo and syncope are the result of an injection into a vein, especially if phenol is used; and (6) bleeding is always to be expected with the next bowel movement, although usually it amounts to only a drop or two.

Always keep a diagram showing where each injection has been given, so that the same point will not be injected too soon.

Sodium morrhuate and quinine and urea solutions, in 5-percent strength, are both effective drugs. Phenol should never be used in mineral oil, as it leaves a boggy tumor, because mineral oil is slowly absorbed. Be sure to ask if the patient has any unpleasant symptoms after taking quinine for a cold or malaria, to avoid a quinine reaction.

Preparation: If an enema is necessary, have one given at the office.

The area or areas to be injected should be cleansed with an antiseptic, applied on cotton swabs. After an injection is given, remove the needle, touch point with phenol, and then immediately neutralize it with alcohol.

After Care

A mild analgesic (phenacetin compound or Anacin) is given; the hot-water bottle or hot sitz bath is prescribed; a suppository is introduced; and mineral oil is ordered to keep the stools soft. Hemorrhoids must be replaced, or soreness will follow.

Complications: (1) Slough, due to improper placing of the solution; (2) hemorrhage, which must be controlled by suture, as it cannot be tied (slight bleeding need not be treated). If the injection is made too superficially (into the mucosa itself) or too deeply (into the muscle), these complications will result.

Contraindications: (1) Fissure; (2) fistula or other conditions which will require surgery; and (3) a thin perineal floor, injection near which may result in a fistula, especially in multiparas.

Disadvantages: (1) Ten percent or more of recurrences within 5 years; (2) the lesion is not removed; (3) much time is required on the patient's and the physician's part; (4) frequent visits are required; and (5) complications are not infrequent, because of the type of treatment and the fact that the patient is ambulant.

78 S. 9th St.

DISCIPLINE AND LIBERTY

What avails the show of external liberty, to one who has lost the government of himself?—MURRAY'S "English Reader," 1823.

Notes from the Mississippi Valley Medical Society

Part II

Reported by

GEORGE B. LAKE, M.D., Waukegan, Ill.

THROAT INFLAMMATIONS

By V. V. Wood, M.D., F.A.C.S., St. Louis Mo.
Asst. Prof. of Otolaryngology, St. Louis Univ.
Sch. of Med.

EVERY physician should learn to use a head mirror, not only for examining the throat, but also the vagina, the ear, and other patent cavities.

Sarcoma in the nasopharynx is often mistaken for adenoids; but the former is *hard*, while the latter is *soft*.

In examining the throat, we must look for *hyperemia* (which may be an early sign of scarlatina); *ulcerations* (Vincent's infection; syphilis); *edema*, which may be due to streptococcus infection (in which case the patient will be decidedly ill) or allergy (the patient is not sick); and *abscess*. Edema frequently ends in an abscess.

Do not *overtreat* throat inflammations locally. Keep the throat *clean*, with frequent, hot saline irrigations or gargles. Do not incise tonsillar abscesses until you are *sure* there is pus. Most cases will open spontaneously. Do not cut into edema or cellulitis, as this may open the way for septicemia; or it may be a case of *diphtheria*.

We may see cases of *diphtheria*, *mixed* with tonsillitis or a streptococcus infection, in which case the onset of the disease is more acute and sudden, and the membrane is *bilateral*, covering *all lymphoid tissues*. We may find diphtheritic membranes *anywhere*, and they may be *white* (from using a chlorine gargle), not the textbook gray in color.

If in doubt about a case of *diphtheria*, take a smear for diagnosis, but *give antitoxin—plenty of it—without waiting* for the report.

Vincent's infection and syphilis may be confused, though there is less secondary syphilis now than formerly. The red area around a mucous patch is much redder than with a Vincent's ulcer. In tuberculosis there is *no red border*. Patients with Vincent's infection or syphilis have few or no constitutional symptoms. The darkfield examination is useless in the mouth, where there are always non-pathogenic spirilla.

Do not use sulfanilamide in *mild* throat infections. Save it for the *severe* cases.

In Vincent's infection, use *40-percent silver nitrate* solution locally; but *don't let the swab drip!* If heavy sloughs are present, give neoarsphenamine, intravenously.

Common sense in medicine is far more important than elaborate specialistic training, except in certain details of technic.

PROSTATIC ENLARGEMENT AND GROSS HEMATURIA

By N. G. Alcock, M.S., M.D., Iowa City, Ia.
Prof. Genito-Urinary Surg., Univ. of Ia.
Coll. of Med.

THE clinical diagnosis between benign and malignant *prostatic hypertrophy* is as accurate as that

made in the laboratory. In a man more than 55 years old, a large, hard, fixed, nodular prostate is the seat of malignant disease, and a *late* case. The most important diagnostic point is its stony *hardness*; the next is its *fixity*. An hypertrophied prostate is *firm*, but elastic, like the feel of a solid rubber ball, as compared to that of a base ball. If there is a *suspicion* of cancer, 90 percent of cases will be found positively malignant.

Two conditions may confuse the examiner: *Tuberculosis* (which is very rare, and is generally found in *young men*), and large, fixed *stones*. The x-rays will make the diagnosis clear.

Anyone who has access to an x-ray machine can make an *air cystogram*, and there is no danger in doing so, if one is careful not to blow the patient up. Air emboli *do not occur*. A urethrogram, also, should be made. Cancer of the prostate does not encroach deeply on the bladder. Hypertrophy *does*, and the urethrogram will show the angulation.

In all suspicious cases, roentgenograms of the bones of the *pelvis and torso* should be made, to discover possible *metastases*, which are present in 30 percent of cancer cases when they are first seen by a physician. Lesions of the same type occur in cancer of the breast or thyroid, and if they are typical, a diagnosis can be made on the bone appearance *alone*. Pain in a bone is not proportional to the extent of the lesion.

In making urologic roentgenograms, one should have several ideas in mind: (1) The discovery of bone lesions and stones; (2) delineation of the bladder (using 3-percent sodium iodide solution), to determine its size and the presence of *diverticula*; (3) wash out the sodium iodide, turn the patient *partly* on his side and take another picture, avoiding a bony background; (4) make a urethrogram, using an opaque medium suspended in lubricating jelly; (5) make another picture, anteroposterior, with the patient flat on his back.

If bladder *diverticula* are present, there will *always* be residual urine, even after a prostatectomy. Tell the patient so, and avoid trouble later. No matter how big a prostate may be, if there are no symptoms of *obstruction*, do not worry about it.

Do not use a cystoscope on prostatic patients. An air cystogram will give nearly all of the necessary information.

In prostatic hypertrophy, *gross hematuria* is *common*; but it is *rare* in carcinoma, where the bleeding is microscopic in quantity. Lesions in *all* parts of the urinary tract can cause gross bleeding, so this symptom is not pathognomonic.

It is easier to find out *where* the cause of the bleeding is than *what* it is. If *fishworm clots* appear, the source of the bleeding is always *above the bladder*. If the patient is bleeding when first seen, pass a catheter and wash the bladder three or four times. If the source of the blood is *above* the bladder, these washings will clear away the blood; if in the bladder, they will not.

THYROTOXICOSIS AND NEUROSIS

By Willard Bartlett Jr., M.D., F.A.C.S.,
St. Louis, Mo.

Instructor in Surg., St. Louis Univ. Sch. of Med.

WE MUST frequently differentiate between thyrotoxicosis and a neurosis, so I shall outline the differential points, briefly, in tabular form (Table I).

In *basal metabolism* testing, we must avoid pitfalls—the effect of *prior* activities and fluctuations of nerve tension *during* the test. Check the pulse rate and pulse pressure, before and after the test.

In the *therapeutic test*, by giving iodine, *serial* blood-chemistry studies should be made *during* the test.

Avoid thyroidectomy in non-toxic goiter patients and in neurotics.

There have been three historical periods in the *best teaching* as to the treatment of intestinal obstruction, and they overlap. In the first period, operation was recommended as soon as the diagnosis was made, and the mortality was very high; in the second period, the surgeon waited for some time (during which the patient was losing much water and chloride) before operating, and the mortality was still high; in the third period (where we are now), the recommended management of such a case is to *watch the patient carefully*, remove or relieve all the conditions that *make him sick*, and operate (if this proves to be necessary) when he is in the *best possible* physiologic condition.

There are two chief physiologic factors to be considered in the prognosis and management of a case

Symptoms and signs	Thyrototoxicosis	Neurosis
Nervousness	Present; not related to emotion; increased activity also present.	Present; emotional; depressions and phobias; decreased activity; retires from life.
Periodicity	By months.	By days or hours.
Heart Consciousness	Increased pulse rate; relieved by rest.	Various—"pain," "palpitation," "stopping of heart"; not relieved by rest.
Loss of weight	Good appetite; eats plenty; no dyspepsia.	Loss of appetite; eats little; dyspepsia.
Shortness of breath	Overventilates on exertion; puffing.	Sighing; overventilation at rest; need of cool and moving air; "wind cut off."
Neck sensations	Rarely or never present, except when trachea is compressed.	Occur on excitement—"tightness," "choking."
Weakness	Physical, objective; great press of activity; feels fresh in A.M.	Subjective; avoids duties; wakes exhausted.
Insomnia	Not present.	Patient's statements wholly unreliable.
Temperature sensations	Always feels hot, even in winter; wears few clothes; extremities warm; generally has some fever.	Intolerant to both heat and cold; perspires easily; extremities cool.
Bowel habits	Activity increased.	Slow and irregular.
Menses	Rarely great irregularity.	Changes due to endocrine disorders.

TREATMENT OF INTESTINAL OBSTRUCTION

By Manuel E. Lichtenstein, M.S., M.D., F.A.C.S.,
Chicago

Asst. Prof. of Surg., Northwestern Univ. Med. Sch.

THE conditions that make a patient sick, in intestinal obstruction are: vomiting, distention, and strangulation.

of intestinal obstruction: (1) The *duration* of the obstruction (the longer, the worse); and (2) the *level* of the obstruction (the higher, the worse).

The foregut (stomach and duodenum), the midgut (jejunum, ileum, and right colon), and the hindgut (left colon), are separated from each other, anatomically, by their *circulation*. The celiac axis of the aorta supplies the first; the superior mesenteric artery the second; and the inferior mesenteric artery the third. Moreover, in the foregut and the proximal part of the midgut, food and liquids pass *into* the gut; distal to that point, they pass *out* of the gut (see Fig. 3).

In the midgut, food will be absorbed if it is *well diluted*, but not if it is concentrated; therefore the contents of this part of the bowel are normally always liquid, and there is abundant succus entericus. Remember that the ascending colon is *part of the midgut*, and will absorb water and salt.

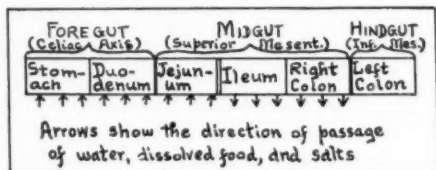


Fig. 3

If the obstruction is in the foregut (above the jejunum), the only physiologic way to get rid of fluid (distention) is by vomiting; if below that point, vomiting grows less the lower we go.

Vomiting

In vomiting the patient loses large quantities of digestive juices, water (initiating dehydration), and chlorides; and the blood and tissue bicarbonates increase, to the point of alkalosis. Moreover, the blood sodium is also decreased and the tissues lose the power to hold water, thus increasing the dehydration.

Treatment: Replace the substances which have been and are being lost!

Replace water by continuous intravenous infusion of from 3,000 to 4,000 cc. in 24 hours (6,000 cc. is too much). Remember that one drop per second will give 3,000 cc. in 24 hours.

Replace Salt (sodium chloride): The normal intake to satisfy the body's requirements is from 5 to 15 Gm. daily. To this must be added enough more to replace abnormal losses. To estimate this accurately, one must test the blood chlorides frequently, and keep the blood isotonic. Remember that physiologic salt solution contains 8.5 Gm. of Na Cl per 1000 cc., and do not give too much, else edema will result.

The best fluid for this infusion consists of a mixture of equal parts of physiologic salt solution and 5-percent dextrose solution (which is isotonic). Of this mixture, one may safely give from 3000 to 4000 cc. daily.

Distention

Distention is produced by gases (of which swallowed air makes up 60 percent) and retained fluids; and causes portal stagnation, changes in the mucous membranes, diffusion of toxins, perforation, and cardiac and respiratory embarrassment, by pushing up the diaphragm.

Treatment: Intubation and suction—gastric, duodenal, jejunal, or ileal, as the case may require; ileostomy or cecostomy; or release of the obstruction. If these things are done, the patient may not need an operation, and if he does, he will be in the best possible condition for it.

Strangulation

Strangulation is more serious in the peritoneal cavity than in a hernial sac. It causes loss of blood proteins, concentration of the blood, peritonitis, and toxemia.

Treatment: Transfuse blood or plasma; exteriorize or resect the dead bowel; treat the patient, as required, with biologicals or chemotherapy.

The general principles of the treatment of intestinal obstruction are:

- 1.—Prepare the patient, at once, for a possible operation.
- 2.—Make as accurate and complete a diagnosis as possible.
- 3.—Operate only when the patient's condition makes it necessary, and when he is in the best condition possible under the circumstances.

COMMON SKIN DISEASES

By Ruben Nomland, B.S., M.D., Iowa City, Ia.
Prof. Dermatol. and Syphilol., Univ. of Ia.
Coll. of Med.

PITYRIASIS ROSEA presents oval, scaling macules, mostly on the trunk. It generally begins with a "herald" or "mother" patch, and subsides in

about six weeks; but a mild erythema dose of ultraviolet radiation will generally shorten this time. Calamine lotion or liniment will give relief.

Psoriasis may begin on the elbows and knees or on the scalp, and may be acute or chronic. The eruption consists of scaling papules of varying appearance, and changes in the nails.

Treatment: An ointment of crude coal tar, from 2 to 6 percent, in zinc paste (N.F.); or salicylic acid, 3 percent, in ammoniated mercury ointment, 5 percent; or chrysarobin, from 3 to 10 percent, in cold cream. Mild doses of ultraviolet rays, increasing to tolerance, twice a week; or immediate auto-hemotherapy, every 5 days for 6 or 8 times, may be helpful.

Impetigo is a superficial, pustular dermatosis, most common in children. Look for the cause (it may be head lice or scabies).

Treatment: Remove all crusts, gently, with warm boric acid solution, every day, and apply 3-percent ammoniated mercury ointment, or a 3-percent, aqueous solution of gentian violet. The latter is better.

Scabies is common in adults, and is a group infestation (families, etc.). The itching is worse at night (when warm in bed). The lesions appear on the hands and wrists and between the fingers; in children, on the palms; in adults, the eruption on the penis is almost characteristic.

Treatment: Do not overtreat. Sterilize the clothes and bedding, and apply "Danish ointment," after a thorough bath, for two successive nights, with a warm bath the following morning. Or one may use an ointment containing 10 percent each of balsam of Peru and sulfur for three nights, wearing the same clothes next to the skin.

"Winter itch" (also called by other names) is due to drying of the skin and is characterized by generalized itching.

Treatment: No soap-and-water bathing. Use the colloid bath—linit or cornstarch; or boil one cup of oatmeal, in a bag, in two or three quarts of water, and put it all in a tepid bath, with one cupful of sodium bicarbonate. Dry by blotting.

Acne is caused by a greasy skin plus puberty, and is always preceded by "blackheads," the severity and depth of which correspond with those of the pustules.

Treatment: There must be no picking or squeezing of the pustules. Control the greasiness by washing, gently, with soap and water two or three times a day; apply lotio alba or some other drying lotion; use a 3-percent resorcinol ointment at night, and in the morning, steam the face with hot wet towels. Do not give iodides (including iodized salt) or bromides. Ultraviolet or roentgen irradiations help about 25 percent of the cases. Vaccines, vitamins, and hormones are of dubious value.

Dermatitis of the hands (sometimes called "eczema of the hands") appears in patches on the backs of the hands, beginning from a single vesicopustule. It is a contact dermatitis, not caused by a fungus.

Treatment: Avoid all irritants, including soap and water; clean the hands with a bland oil and apply zinc oxide ointment or zinc paste (N.F.); use no rubber gloves next to the skin, but bandage the hands during the day and wear cotton gloves at night. Ichthylol ointment, 2-percent, is often helpful. In acute cases, use Burrow's solution, 1:16; or potassium permanganate, 1:15,000. Nonspecific vaccines sometimes help.

THE END

A Living for the Doctor

The Business of Medicine and the Art of Living

Dr. Harold Swanberg

SINCE Dr. Maximilian J. Hubeny is so occupied with other duties, he has asked to be relieved from the editorial staff of *CLINICAL MEDICINE*, and his place, as Associate Editor for Radiology, will be filled by Dr. Harold Swanberg, of Quincy, Ill., whose portrait appears here.

Dr. Swanberg was born in Philadelphia; received his degrees (B.Sc. and M.D.) from Loyola University, Chicago, in 1916; and has done graduate work in Harvard Medical School and in Vienna. Since 1919 he has been director of the Quincy X-Ray and Radium Laboratories, and is now radiologist to two hospitals and editor of the *Mississippi Valley Medical Journal* (formerly the *Radiologic Review*).

He is a fellow of the A.M.A. and the American College of Physicians; past-secretary of the Illinois State Medical Society; past-president and secretary of the Adams County Medical Society; past-president of the Illinois Radiologic Society; founder and secretary, since its beginning, of the Mississippi Valley Medical Society; secretary of the Mississippi Valley Medical Editors Association, and a member of a number of other organizations here and abroad.

Dr. Swanberg served in the Medical Corps in the World War (discharged a captain) and held a major's commission in the Reserve Corps for five years. He is an enthusiastic exponent of his specialty and a man of unusual energy and vision,

and will make a valuable addition to our staff.

G.B.L.

Pictures

WE HAVE, several times, heard the remark that doctors are about the toughest and driest social propositions in existence, because they seem to be so wrapped up in their professional work that the only line of conversation they have is "shop talk," while many of them seem to pride themselves upon being devoid of "parlor accomplishments."

It is well—exceedingly well—that a man should be engrossed in and enthusiastic about his work, but we must remember that we were *human beings* for quite a number of years before we were doctors and that, even though there appears to be some evidence to the contrary, we are still human beings, in spite of the profession we have chosen.

The practitioner or clinician is dealing primarily with other human beings whose organs or functions are more or less deranged, and the more he can

learn about *people* and the inner springs which move them, in health and disease—the closer he can get to the *reality* of them—the more capable he will become in solving their problems.

Among the various broadening and humanizing exercises, the study of good pictures is one of the most valuable, because here we come closer to the reality of things than most of us are able to ap-



proach by other means. We look at a landscape and we see what it means to us. We look at a *real* picture and we see nature, transmuted and translated by a *personality*. If we study the picture, we can often learn more regarding the artist than we would be able to find out by means of an exhaustive physical or psychologic examination.

One need not attempt to make oneself into an art critic or a connoisseur in order to obtain benefit from a visit to an art gallery, but some slight study of artists and their work is vastly stimulating to one's power of appreciation.

If art galleries are not available to you, it is now possible to obtain, at small cost, excellent reproductions of the world's masterpieces, both ancient and modern; and most of the metropolitan newspapers now run "art supplements" each week, a careful study of which will obviate the necessity for the purchase of expensive textbooks.

If you have any graphic talent yourself, it can be developed with great profit. In Chicago there is an organization known as the Business Men's

Art Club, and the paintings produced by some of these active, busy, and successful merchants, doctors, lawyers, clergymen, and manufacturers would be a vast and pleasant surprise to a good many people. And then there is the American Physicians' Art Association, which has been mentioned in these pages.

Here, then, is a hobby which can be ridden at small expense and at odd hours, when it will not interfere with necessary, bread-winning activities; will quicken the powers of observation and appreciation; enlarge the faculties of emotional understanding and human sympathy; enrich the conversational powers and add interest to social intercourse; and prove a refreshing and invigorating relief from the pressure of professional activities.

Let us *make* pictures, if we can, as an outlet for our own emotional pressure, and let us *study* them, in any case, so that we may gain more knowledge of the emotional reactions and human qualities of others.

G.B.L.

★ Notes and Abstracts ★

Strengthening Our Nation from Within

MOBILIZATION of our resources is vital to the future of the United States, but if this mobilization includes only the military and economic resources of the nation, it will fail. In the final analysis mobilization of our human resources is of first importance. Every effort, therefore, must be made to strengthen that physical, spiritual, and mental well-being which makes for a united people, fully prepared to defend its way of life.

The unbalanced growth of the population of the United States has long been a cause for concern; the majority of our children are born to the families which are least able, because of limited income, to provide the necessities of wholesome living. As we strive to strengthen our nation from within, the importance of correcting this trend becomes paramount; it will be corrected if size of family is made subject to voluntary control by the parents themselves.

Planned parenthood, if made possible to all by general availability of reliable information on birth control, can contribute directly to national well-being; its importance today is in equal proportion to the need everywhere to strengthen our population for the future.

Each of us who is concerned with strengthening the quality of our people has an opportunity to impress upon the public mind—eager for sound plans to prepare America for the future—the part which planned parenthood, by means of scientific child spacing, can and should play in any national preparedness effort.

As planned parenthood makes for wholesome family life, it can greatly lighten the government's burden of responsibility for the indigent, the ill, the distressed, and release vast energy and wealth for more constructive services. Essential at all

times, it is now more important than ever before that knowledge about birth control should be made available to *all* economic groups. Only thus can all families contribute their full potential strength to the national defense.—BIRTH CONTROL FEDERATION OF AMERICA.

The Physician on the Witness Stand

THE first essential for a good witness is to have a thorough knowledge of the case, even of what appear to be minor details. Your evidence will not help your client, but may actually prejudice his case, if you have not thoroughly mastered it beforehand. Go into it with your patient and hear carefully what he has to say; consider if these facts are likely to be supported by the evidence in Court. Try to foresee the other side of the picture—the evidence likely to be brought forward by the opposing party. Never let your mind or judgment be obscured by prejudices in favour of your patient. His case may be a poor one, and yet by carefully prepared evidence, you may be able to secure judgment in his favor.

Never answer an irrelevant question; appeal to the judge, if the opposing lawyer insists, as the law of evidence does not include the use of irrelevant questions.

The second requirement which a witness should possess is a good memory. Once he has made a statement he must stick to it. He must not allow his original statement to be contradicted on cross-examination. Counsel will do his best to attain this end, but a careful witness will not be trapped into contradicting himself, even when the lawyer suggests that he may be mistaken or quotes authorities that express a totally opposite opinion. *A good witness will never show the slightest indication of wavering.*

The third requirement: speak slowly in a clear tone of voice. Use common words rather than medical terms whenever possible. Never become angry when being bullied but watch for a chance to turn the tables.—JAMES BURNETT, M.A., M.D. in *Med. World* (Lond.), Nov. 1, 1940.

Science vs Commonsense

"Methuselah ate what was put on his plate,"

Without any questions, or fears.

He knew nothing anent what a calorie meant,
Yet he lived over six-hundred years.

I have noticed that men who talk vitamins when

They are in a café, or are dining,

Are pin-headed guys, who would surely be wise
To gobble their grub without whining.

And those who say that they can never eat fat,

Or of this and that food should beware,

Had best look where sits, with his corned beef
and grits,

The husky old chap who don't care.

The bold dietitian would take the position

We should eat by the rules from his "mike,"

And thus lose the joy of the untutored boy,
By *not* eating things that we like.

Before we digest, there's a chemical test

Should be made of our gizzard and guts;

Yet Nature makes plain what would give us a pain,
And much of such nonsense is "nuts."

I would not decry *all* that the wise men apply

To what we should eat or should drink,

Yet meticulous rules are fit only for fools

Not endowed with the brain power to think.

Yes, "Methuselah ate what was put on his plate,"

And Adam ate all but the "Apple;"

Then Eve took the fruit that gave them the "boot,"
And now, we with bellyaches grapple.

Let Science and Sense get together, and hence

Stop all of this utter confusion;

Let each one decide by what rules he'll abide,
And forget scientific illusion.

OSCAR ALLEN, M.D.

Rosemead, Calif.

Permission for Autopsy

A SUCCESSFUL method of asking for autopsy permission is this:

In our first approach, my associates and I assure

the parents of our sympathy and tell them that we want to offer them one more real service—a complete examination of the body of their child; that we want to spare them the doubts that often assail people for years after the death of a member of their family; that often, even years afterward, people have returned to me and have said, thru their tears, "Doctor, I wish I had let you do that postmortem examination, for then I would really know whether or not his death could have been prevented"; and that some disease may be found in the body which should be discovered for the sake of the other members of the family, such as miliary tuberculosis.

Postmortem examinations are especially important on the bodies of newborn infants. By no other means can the real cause of death be determined and the family assured that no condition is present which might affect the welfare of future infants born to them. In addition, the family can be spared the distress which so often ensues from their mistaken idea that they lost their child through faulty obstetric care, as in the infant with all the signs of a birth injury, who, at postmortem, was found to have a cerebellar abscess of intra-uterine origin.—CLIFFORD SWEET, M.D., in *J. A. M. A.*, Oct. 26, 1940.

A Message to Young Physicians*

IN CHOOSING the profession of medicine as your calling, you have individually assumed a high responsibility. In your future lives you will be in continuous conflict with disease and death.

Day by day you are to deal with the most confidential, the most important, and the most sacred interests of man. Let me entreat each one of you, then, in the prosecution of your professional career, not only to cultivate the highest degree of familiarity with every branch of medical science and art, but also a mental discipline, which will enable you to use the facts and materials with which you become familiar, with the highest degree of promptitude and skill. You will require a moral integrity that no temptation can swerve.

If you do these things faithfully, when you go out from these halls, your lives and acts will constitute the most efficient support for your Alma Mater, and the world will be better and happier for your living in it.

NATHAN SMITH DAVIS, M.D.

*From an address inaugurating the first session (1859) of the Medical Department of Lind University (Northwestern University Medical School). Delivered October 9, 1859.

PROPAGANDA

As long as the love of power is a dominant passion of the human bosom, and as long as the understanding of men can be warped and their affections changed by operations upon their passions and prejudices, so long will the liberties of a people depend on their own constant attention to its preservation.

The danger to all well-established free governments arises from the unwillingness of the people to believe in its existence or from the influence of designing men diverting their attention from the quarter whence it approaches to a source from which it can never come. This is the old trick of those who would usurp the government of their country. In the name of democracy they speak, warning the people against the influence of wealth and the danger of aristocracy. History, ancient and modern, is full of such examples.—WILLIAM HENRY HARRISON (1840).



The Seminar

Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussions of any or all problems. Discussions should reach this office by the 5th of the month following the appearance of the problem. Send your problems and discussions to The Seminar Dept. care CLINICAL MEDICINE, Waukegan, Ill.

Problem No. 12—1940 (Diagnostic)

Presented by Drs. A. C. Lendrum and W. A. Mackey, Glasgow, Scotland
(See CLIN. MED., Dec., 1940, p. 424)

RECAPITULATION: A man of 73 years had had attacks of agonizing pain and exquisite tenderness, in the outer side of his right arm, for more than 30 years, growing worse, in frequency and severity, with the passage of time. He had found no means of gaining relief.

At the site of the pain there was a small, bluish tumor in the subcutaneous tissues, which became turgid and prominent during crises of pain. The right arm was always colder than the left. No other abnormalities were recorded.

Requirements: Suggest a possible diagnosis, any special examinations you would have made, and the treatment, giving reasons.

Discussion by W. A. Farrell, M.D.,
Toronto, Ont., Can.

It is interesting and astonishing that this elderly gentleman should carry his tribulation for such a long time without having resorted to local applications, which, advertised as a panacea, would by now have caused sloughing of the whole diseased area, to the bone.

The chronicity and periodicity of the lesion, together with the severe pain on touching it, and the appearance of a tiny, bluish tumor in the subcutaneous tissue, with a temperature change, gives the diagnosis: *Neuroma* (cavernous angioma).

This type of neuroma is rather rare, but more and more cases are being reported recently.

The treatment of this tumor is to excise it. If, in removing a neuroma, it is necessary to excise a portion of a nerve-trunk, always suture the ends of the divided nerve if possible, so as to facilitate restoration of function.

Solution by Drs. Lendrum and Mackey.*

Since the removal of this tumor, under a local anesthetic, there has been no reappearance of pain at any time.

The pathologic picture was typical of "glomus" tumor, or *glomangioma*. These small tumors, which were formerly considered rare, but are now being reported in increasing numbers, are the "trigger-points" which set off severe paroxysms of pain. They are not malignant and may readily be excised. (See abstract on page 52 of this issue.)

*Adapted from *Brit. Med. J.*, Sept. 30, 1939.

Problem No. 2 (Surgical)

Presented by W. A. Diddle, M.D.,*
Iowa City, Iowa

A GIRL of 18 years gave a history of undergoing an abdominal operation for a mass in the right lower abdominal quadrant. The surgeon made a diagnosis of appendix abscess, and drained the area, releasing some material that seemed to be pus.

Six months later, definite "pointing" took place in this region, and drainage was again carried out. No fever was present with either of these episodes, and the patient's general health was good.

The mass reappeared several months later, when a careful general physical examination, and blood and urine studies, revealed nothing abnormal. There was no fever, no pain, no bowel upsets. On pelvic examination, the uterus was found to be pushed to the left by a mass.

Requirements: State your tentative diagnosis, giving reasons. What further information would you need to reach a definite diagnosis?

Comments on Problem No. 10—1940
by Dr. R. L. Gorrell

REFERRING to Dr. Lake's comments on Problem No. 10 (CLIN. MED., Dec., 1940, page 424), it seems that a few points have been overlooked.

1.—This patient would not consent to cystoscopy, especially when he improved remarkably after taking atropine.

2.—There was no sign of residual urine; thus no bladder neck obstruction.

3.—He was financially unable to drive 90 miles to the nearest urologist and pay for a urologic study.

4.—Cystoscopy would have shown nothing, as I have amply confirmed since that time.

I am usually an advocate of thorough examinations, and perform many urographic studies, but I am opposed to spending the patient's money unless a more definite diagnosis can be obtained.

How About It?

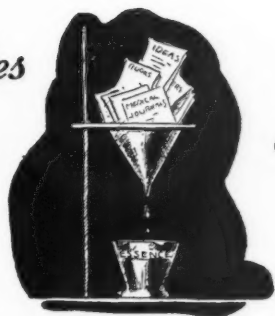
READ the last editorial on page 3 of the January, 1941, CLINICAL MEDICINE.

If YOU like the *Seminar* and want to see it continued, YOU will have to send in discussions of the problems presented frequently, and a problem now and then. We're not going to coax individuals to send discussions (as we have sometimes done in the past), and we're not going to

(Continued on page 55)

*Presented as a part of a postgraduate course in obstetrics and gynecology, at the University of Iowa, in December, 1940.

Clinical Notes



and Abstracts

Interpretation of Chest Roentgenograms*

AN ORDERLY approach is necessary in examining chest roentgenograms. It is best to follow the example of the anatomist, by proceeding from that which is outside to that which is inside. The *soft tissues* on the outside of the bony cage must be scanned for irregularities and for the state of nutrition. The latter is best determined by studying the axillary folds, where malnutrition throws them out in bold relief, below the clavicle and along the chest wall. The breast shadows of the female may be significant, especially if one is absent.

Anomalies of the *ribs* are not rare; contraction of the ribs, resulting from organized pleural exudate and adhesions, may be noted. Old or recent fractures may give a clue to other obscure shadows. In apical areas of density, destruction of the overlying ribs may distinguish between a heavily thickened apical pleura and a superior pulmonary sulcus tumor. Pulmonary emphysema causes the ribs to leave the spine more horizontally than normal.

In studying the *internal soft tissues* of the chest, consider them as being suspended from the *base of the skull*, pendulumwise. If they are dislocated from their normal positions, a pathologic process may be pushing or pulling them. Rapidly growing tissues, such as a tumor or fluid, will push, while scar tissue exerts a pull. The loss of a normal constituent of the chest causes a dislocation of the remaining viscera to the affected side, such as occurs when air is absorbed from the alveoli, producing atelectasis.

In properly exposed films, the decreased density of the *trachea* and *mainstem bronchi* should be visible. Normally, the trachea is in the midline, sloping slightly to the right in its lower portion, if the patient's position is symmetrical with the central x-ray discharge. *Deviation of the trachea is always important*, except in scoliosis. Narrowing of the trachea and mainstem bronchi should always be looked for.

Normally the *aorta* is always to the left side of the spine, at the level of the 5th thoracic vertebra. The width of the aortic arch varies with the individual's size and age. It sometimes appears to be abnormally wide in fat persons, because of the upward lift of the abdominal fat, and this is also

true of the heart shadow. Calcification of the arch is frequently noted, together with apparent elongation, in later years of life.

The apex of the *heart*, as seen on the film, usually does not correspond with the clinically-measured heart beat, using the midclavicular line as the baseline. The mid-sternal line should be used. The heart is easily shifted by pushing or pulling forces; both the heart and aorta may be dislocated upward by fibrotic contractions in one or both upper lobes.

The domes of the *diaphragm* should be smooth and gently arched; the right about 1.5 cm. higher than the left. Irregularities, tenting, and attachments to the lateral walls should be noted, for evidences of subdiaphragmatic influences and for pleurisy. In *pulmonary emphysema*, they are apt to be lower and flatter than normal.

The *pleurae* are normally invisible. Thickening of the pleurae is often visible under the second ribs, in apparently healthy people. An old pleuritis can frequently be detected under the 9th rib in the mid-axillary line. Interlobar thickening can be seen as linear markings, though seldom do they show the entire interlobar fissure. Calcification of the pleura is a late result of pleural effusion, and not infrequently of hemothorax and empyema also.

The *anatomic hilum* is wholly outside of the lung and is best seen on the film of the left side, only the left bronchus and the pulmonary artery showing as distinct entities. The *x-ray hilum*, which lies lateral to the anatomic hilum, is easily seen, and is composed of the first divisions of the mainstem bronchi, the pulmonary artery and vein, bronchial artery and vein, lymph nodes, and supporting connective tissue. Its vertical limits are fairly constant and are covered by two interspaces and a rib. The outer limit of the hilum extends indefinitely to the imaginary line of the inner third of the lung; its density is variable, but one should be able to see through it. When of a heavy, homogeneous structure, it is definitely abnormal. One should look for calcification and enlarged nodes. Between the bronchi to the lower lobes and the heart, there is normally a more or less rectangular dark area, seen best on the right side. When this area is obliterated, a lesion is present, although it is frequently mistaken as an enlarged hilum density.

*Dis. Chest, Dec., 1940.

The trunk densities are composed of bronchus, pulmonary artery and vein, bronchial artery and vein, lymphatics, and supporting connective tissue. Chronic bronchial infections are apt to show heavy trunks, which, in a localized area, may suggest bronchiectasis. Enlarged trunks secondary to cardiac lesions may be suggested by an irregularly shaped heart. With advancing age, the trunks become heavier; tortuous trunks are due to vascular changes, rather than to bronchial disease. Beading or studding of the trunks follows tuberculosis scarring. By studying the distribution of the trunks, it is possible to localize the lobes of the lungs.

Emphysema may be diagnosed by (1) ribs leaving the spine more horizontally than normal; (2) the lungs are blacker; (3) trunk densities are heavier and more separated; (4) the pulmonary arteries stand out prominently at the lung roots and in the hilum; (5) low, flattened diaphragm domes. Fluoroscopic examination shows that the diaphragm has limited movement and is held in a position of inspiration; the base of the lung fails to darken on inspiration; and the heart is separated from the anterior chest wall.

DAVID W. HEUSINKVELD, M.D.
Cincinnati, Ohio

Bladder-Neck Obstruction in Women

IN MEN, obstructions at the bladder neck, of the median bar type, have been recognized for years, but are frequently overlooked in general practice, because the rectal examination often discloses a normal-size prostate. If a catheter is passed after the patient has urinated all he can, the finding of residual urine indicates that an obstruction is present.

Residual urine in women may be secondary to (1) cystocele; (2) appendiceal abscess; (3) various tumors of the uterus and adnexa; (4) neurologic and hysterical conditions; and (5) imperforate hymen.

Symptoms: Dysuria, frequency, and enuresis (several cases of unexplained bed wetting were cured) were the primary symptoms; chills, fever, pyuria, and (rarely) hematuria appeared after the urine became infected.

Treatment: A small resection is carried out through a surgical cystoscope. Relief is obtained at once.—W. BAURYS, M.D., in *Penn. Med. J.*, Nov. 1940.

Painful Breasts

PAINFUL breasts usually occur in the thin, nervous women, and are much less common in women having a good fat pad. The tenderness, heaviness, and discomfort are increasingly intensified during the 3 or 4 days preceding the menstrual period, and gradually diminish over a period of eight days.

Symptoms: Heaviness of the breast, with pain radiating to the axilla and down the corresponding arm; discomfort may radiate down as far as the tips of the fourth and fifth fingers, which become numb.

Treatment: Studies of 500 cases showed that many such patients have an increased amount of estrogenic substance in the blood, and treatment

with estrogenic substance was ineffective for the relief of painful breasts.

A thin patient, with virtually no fat pad covering her breasts, can almost be promised that her symptoms will disappear if she will gain 10 or 12 pounds, as breast tissue is definitely tender if not well covered. Patients often confuse the tenderness of the thinly covered prominence of the third and fourth ribs with the pain of tender breasts. Both are usually cured by taking on weight.

Reassurance, hot compresses or hot showers over the shoulder, breast and chest wall on the affected side, and weight gain are all the treatment that is needed.—FRANK E. ADAIR, M.D., in *West. J. Surg., Gyn. & Ob.*, Nov., 1940.

The Diagnosis of Peptic Ulcer

The consistent finding of occult blood in the stool or gastric contents is a reliable sign of ulceration in the gastro-intestinal tract. When the gastric contents are aspirated, a very small tube must be used and it must be introduced carefully. The test is of no value if there is bleeding from the nose, throat, gums, or esophagus.

For four days before the stools are examined for occult blood, the patient should be forbidden to eat meat, fish, eggs, or green vegetables, or to take medicine of any kind.

This simple test can be carried out in any general practitioner's office and should precede roentgenography. Fluoroscopy and gastroscopy may be necessary to clinch the diagnosis. All other tests for ulceration are not reliable, including the recently announced phenolphthalein test.—A. L. LEVIN, M.D., in *Rev. Gastroent.*, Oct.-Nov., 1940.

Painful Subcutaneous Tumors

SEVERAL hundred persons are constantly suffering severe attacks of pain because of a small tubercle, the *glomangioma*, which has not been properly diagnosed nor treated. This tiny tumor is readily removable under local anesthesia, and the physician who removes it scores what is, perhaps, the greatest of all successes in minor surgery, if success be measured by the patient's gratitude.

The lesion produces crippling pain. The combination of severe symptoms and few signs has, no doubt, accounted for failure to diagnose the glomus tumor. The patient generally presents himself because of pain, usually in a limb, and generally paroxysmal. In many cases, the pain is related to a trigger point, sensitive to a minimum of trauma; in others the attacks are elicited by heat or cold, or even by a change in position.

If the tumor lies in the subcutaneous tissue, it may take the form of a bluish nodule, of angiomatous appearance, which has frequently been seen to engorge during a painful attack. The patient may fail to observe the nodule or to relate it to his pain. In some cases, especially if the lesion is beneath the nail, no abnormality can be seen.

The symptoms usually develop gradually, over a period of years, and frequently the onset is related to a single obvious injury, especially in sub-ungual tumors. The typical pain may be preceded by vague tinglings and discomforts, but gradually becomes more severe and tends to spread, from a local distribution, diffusely over an entire limb, to

the adjacent limb, or even over the trunk. Simple excision is all the treatment required.—A. C. LENDRUM, M.B., and W. A. MACKEY, M.B., in *Brit. Med. J.*, Sept. 30, 1939.

Anginal Pain and Abdominal Distention

ANGINAL pain may be brought on by muscular exertion, emotion and disturbances. *Gaseous distention of the stomach causes anginal pain*, which is relieved by belching.

Experimental work shows that distention of the stomach produces coronary artery constriction reflexly, and that the use of atropine will prevent such vasoconstriction. The patient with angina will be more likely to suffer an attack if he works shortly after eating.—N. C. GILBERT, M.D. in *J.A.M.A.*, Dec. 7, 1940.

In angina pectoris and coronary artery disturbances, the need is for small, frequent meals, a light diet, antispasmodic medication (atropine or a synthetic substitute), sedatives, and aminophyllin or other xanthine derivatives, which increase the coronary flow. The diet should be bland, easily digested, and free from all gas-forming foods. *Flatulence is to be avoided*, and may be combated with gastric and bowel demulcents, antacid powders, carminatives, and absorbents. Active physical exercise or excitement after meals is always hazardous and is to be avoided.—L. M. MORRISON, M.D., in *J.A.M.A.*, Dec. 7, 1940.

Treatment of Frostbite

FROSTBITE should be treated by covering the frozen part with the hand, or bringing it into contact with some other body surface, until it is thawed out and the circulation established. *A part, after freezing, should never be rubbed*, and rubbing with snow is especially contraindicated.

After prolonged exposure to cold, the patient should be brought into a cool room and, if breathing has ceased, artificial respiration should be given, and the limbs must then be rubbed briskly with cloths wet in cold water. If the patient shows signs of recovery, the temperature of the room should be gradually raised, hot drinks given, and the patient placed in a warm bed.—J. S. LUNDY, M.D., in *Bull. Staff Meet. Mayo Clin.* Nov. 13, 1940.

Diet in Heart Disease

ALTHOUGH the normal heart is not particularly sensitive to the composition of the diet, the latter may be of great importance once heart disease is present, which may, itself, lead to alterations in habits and diet which, in turn, may aggravate the heart disease.

Faulty nutrition can affect the cardiovascular system in a variety of ways. The commonest faults are probably general overnutrition and specific undernutrition. Both faults may be present at the same time. Carbohydrates and proteins should be abundant, and vitamins and minerals should not be overlooked.

In caring for patients with heart disease, it behooves us to observe closely the amount and variety of foodstuffs upon which they are living. Attention to the diet may be quite as important as the regulation of physical habits or the use of drugs.—SAMUEL SOSKIN, M.D., Ph.D., in *Bull. Chicago Heart Assn.*, Jul.-Dec., 1940.

A Double Syringe for the Administration of Protamine-Zinc and Unmodified Insulin*

IN order to obtain the maximum satisfaction when using insulin in diabetes, it is preferable to administer the two kinds of insulin (protamine-zinc and unmodified) separately. The objection to this practice is, of course, the multiplicity of injections.

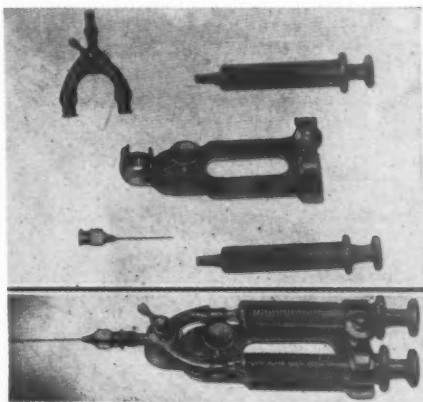


Fig. 1: Above; Fig. 2: Below

In an attempt to circumvent this disadvantage, and at the same time avoiding the admixture of the two liquids, a double-barrelled syringe was devised (see Figs. 1 and 2).

This instrument consists of two 2-cc. glass syringes, connected to a three-way metal stopcock. By adjusting the stop-cock the syringes may be emptied independently of one another. Fig. 1 shows the various parts assembled, as for use. The syringes have been fixed in position by means of an adjustable clamp attached to a frame which has been fashioned from 16 gauge brass plate. Manipulation of the instrument is facilitated by a thumb-rest, which is also fitted to the frame. Fig. 2 shows the component parts disassembled, as for sterilization. The stop-cock unit, which is shown resting loosely in the turreted receptacle of the frame in Fig. 1, has been removed. All the metal parts are chromium-plated.

In use, a somewhat longer needle than is usual for injecting insulin is employed. The proper amount of unmodified insulin is drawn into one syringe and the dose of protamine-zinc insulin into the other. After inserting the needle rather deeply, the unmodified insulin is deposited in the subcutaneous tissues. The needle is then withdrawn slightly, reinserted in a different direction and the protamine-zinc insulin injected. A nurse may complete the

**Canad. M.A.J.*, 40, 72-73 (1939).

treatment of several patients with the device in a short time by merely changing the needles between the individual operations.

E. M. WATSON, M.D.

London, Ont., Can.

Ruptured Gallbladder

I was interested in Dr. Brown's report of a case of ruptured gallbladder, in *CLINICAL MEDICINE* for December, 1940, page 419.

In November, 1925, I was called in consultation to see the sheriff of Chippewa County, and found him delirious and his abdomen greatly distended. It was impossible to obtain any information from the patient.

I learned from his history that he never complained of being ill until five days previously, while attending his duties about seventy miles from his home. He was taken with an acute, severe pain in the abdomen, and was removed to his home and a doctor was called, who took care of him from Sunday until the following Thursday, when I saw him.

It was impossible for me to make a positive diagnosis, but my tentative diagnosis was a ruptured appendix, ruptured gastric ulcer, or ruptured gallbladder, all of which were surgical conditions. He was removed to the hospital and operated upon at 5 P.M.

I made an incision over the appendix, but on opening the peritoneal cavity I found free bile, so I covered this incision and opened the right upper quadrant. I found the ruptured gallbladder, removed several various-sized stones and about a quart of bile from the abdominal cavity, and inserted a drain in the rent of the gallbladder and several drains in both incisions. The patient had a stormy convalescence, but is now living in Miami, Fla., where I saw him in March, 1940, enjoying good health.

I found somewhere in the literature, at that time, that only 34 similar cases had been reported.

The acute onset of this condition is about the same as that of perforated gastric ulcer and, in my opinion, it would be impossible to differentiate before the abdomen was opened.

There must be a considerable number of unreported cases of ruptured gallbladder, as we find so many impacted stones in our routine gallbladder work. However, this is my only case in forty years of practice.

G. A. CONRAD, M.D., F.A.C.S.

Marquette, Mich.

"Hyperinsulinism and Daemoniac Possession"

AFTER reading Dr. Ellis Powell's article in *CLINICAL MEDICINE AND SURGERY* (July, 1940, p. 244), I am quite sure that I saw this patient, with Dr. Van Wart, on one occasion. He was brought in, by a deputy sheriff, who had a light chain from the patient's wrist attached to his own arm, much as one would lead a dog with a leash. This was deemed necessary because the patient often got away, climbed a telegraph pole or tree, and began preaching.

We had him before the class and he had one of his episodes: He gave a very erudite sermon, using

fluent English, employing quotations, etc. The sermon was delivered before the class of students, and shortly after its termination he seemed to get back to his other self. He was decidedly illiterate, used very poor English, and showed no evidence of any except a meager education. When he was leaving the clinic, he attempted to climb a telegraph pole and had to be restrained.

At that time it was our impression he was having an epileptic equivalent and that the sermon he delivered was a facsimile of one he had heard. This must have been fifteen years ago. We advised his placement in one of the state hospitals, and I was under the impression that the recommendation had been carried out; however, I do not know that this was so. I do believe the patient Dr. Powell described was the same one we saw here.

I have always been satisfied with the diagnosis of epilepsy or its equivalent, but I feel that this article, in which Dr. Powell showed that he suffered from hypoglycemia, gives a correct explanation.

C. S. HOLBROOK, M.D.

New Orleans, La.

"Acute Pneumonitis"

A DISEASE resembling ordinary pneumonia in some particulars, but not in all, and not responding to the sulfonamides, is being encountered in this country and should be watched for. It is believed to be due to a virus; resembles epidemic influenza in some respects; and is tentatively called "acute pneumonitis."

It has a long incubation period (about 2 weeks); begins with high fever (usually *without* a chill or pain in the chest); headache; sweating; a rasping cough; and little lung involvement that shows on a roentgenogram. Most cases reported so far have been mild.—DRS. J. M. WEIR and F. L. HORSFALL, in *J.A.M.A.*, Dec. 21, 1940.

The Diagnosis of Ectopic Pregnancy

I HAVE opened 6 abdomens, with the erroneous diagnosis of ectopic pregnancy. In 4 cases, acute salpingitis was found; in one, a threatened miscarriage; and in one, all viscera were normal and I had to wait two days for the vesicles of herpes zoster to appear.

Amenorrhea is not always present. In one case, death occurred three weeks after a normal period, due to rupture of a small tubal pregnancy. In one-third of 40 cases, the last menstruation occurred at the expected time. *All patients, however, had bleeding, excessive in quantity or duration or both. In no case was the last period normal in all respects.*

Repeated fainting is a sign of great value. Enlargement of the uterus is not consistently made out. Pain may be slight, may be located in the anus, across the lower abdomen, or in the iliac fossa, and is of little diagnostic value. *Shoulder pain* is a very important symptom; if complained of by a woman with an "acute" abdomen, it is almost diagnostic of ruptured ectopic pregnancy.

Vaginal examination may reveal only general tenderness, which does not help in the differentiation from acute salpingitis. *Sharp tenderness on moving the cervix with the finger* is a valuable sign; the patient responds by a sharp intake of breath and stiffening. A tender mass can be felt in most

subacute cases, but in few acute cases. Examination under anesthesia helps in identifying a mass, and also helps to rule out a miscarriage.—R. L. DODDS, M.B., in *Proc. Royal Soc. Med.*, Oct., 1940.

Gonorrhea and the Sulfonamides

SULFANILAMIDE will cure 30 percent of ambulatory patients with gonorrhea; but a large number of "cured" patients are symptomless gonococcus carriers.

Small doses are effective: 45 grains (3 Gm.) in 24 hours will give as good results as any larger dose.

If the patient is not symptom-free within five days, further sulfanilamide medication is useless. If he is not cured by the end of 10 days of such therapy, treatment should be started with sulfapyridine or local treatments begun.

Sulfapyridine cures 85 percent of patients, but also leaves some persons as carriers. The toxic effects are reduced by lower doses and a shortened period of medication, the same as with sulfanilamide.

Sulfathiazole cures as many patients and is less toxic; again, the dose should not be more than 45 grains a day, and for not longer than 10 days.—P. S. PELOUZE, M.D., in *Med. World*, Nov. 1940.

The products we advertise are worthy of your attention. Look them over.

Treatment of Compound Fractures

THE Ten Commandments for the treatment of compound fractures may be thus summarized:

1.—Splint and immobilize a compound fracture at the scene of the accident, and quickly, yet carefully, transport the patient to a hospital adequately equipped for treatment.

2.—Make an emergency case out of every compound fracture patient, as the chances of preventing infection are decreased with every hour of delay.

3.—Scrub the limb, about and away from the wound, with green soap and flowing sterile water, for ten minutes.

4.—Cut away all devitalized, lacerated tissue with a sharp scalpel, pick up bleeding points with fine hemostats, and suture loosely or not at all.

5.—Reduce every compound fracture and fix the fragments firmly in place with wires, pins, or vitalium plates.

6.—Coat the wound with sulfanilamide crystals and give sulfanilamide or its derivatives orally, as indicated.

7.—Immobilize in a plaster cast, in which a window should be cut for observation of the wound and surrounding tissue.

8.—Give a prophylactic injection of antitetanus serum, combined with bacillus welchii-perfringens serum.

9.—Give a daily prophylactic dose of roentgen irradiation for three or four days.*

10.—Use pectin therapy in all superficial open wounds.—J. E. M. THOMSON, M.D., in *J.A.M.A.*, Nov. 30, 1940.

*Many men feel that roentgenotherapy should never be given over healing tissues, and that such therapy has never been proved of value in gas gangrene.—Ed.

Regional Enteritis

ACUTE regional enteritis should be treated without intestinal resection. The appendix should be removed, because it may influence the enteritis unfavorably, and on account of the danger of rupture. The signs and symptoms of acute enteritis mimic those of appendicitis.—E. L. ELIASON, M.D., in *New Internat. Clin.*, 1940.

Recurrence may occur in regional enteritis as late as 10 years following radical resection, because (1) the resection was insufficiently distant from the site of the lesion; (2) involved local nodes were permitted to remain; (3) "skip" areas (pathologic areas separated by normal intestine) were present; (4) an infectious, inflammatory lesion was excised; or (5) there was a special manifestation or extension of ulcerative colitis. Practically all recurrences, in reported cases, are at the ileal site of the anastomosis.—HARRY L. SCHENK, M.D., in *Am. J. Surg.*, Aug., 1940.

Areas of Myalgia

MYALGIC spots are small areas, painful on pressure, found along the edges of muscles or at their origin or insertion. They are often the unsuspected sources of pain referred to distant localities.

In the usual type of case, the referred pain may suggest a local fibrositis at an area remote from the real site. Treatment is then applied at the spot apparently affected, and diathermy or infrared radiation does not relieve. This is especially true when all the remedies for sciatica have been used in ignorance of the fact that the sciatic nerve is not affected, the real lesion being an unrecognized fibrositis in one of the gluteal muscles, or even as far away as the heavy back muscles. The myalgic points are discovered by their tenderness to palpation.

Treatment: The injection of Novocaine (procaine) solution will relieve the pain at once, if the proper spot is injected.—*Medical World* (Lond.), Oct. 25, 1940.

The Seminar

(Continued from page 50)

present the solution of another problem until at least three voluntary discussions of it have been received.

If all of our readers who have told us how much they enjoy this Department would send in a discussion even every other month, we would have a wonderful round-table consultation every month.

This is essentially YOUR Department—even more so than the rest of the magazine. We are merely your coordinating agent. If it isn't the way you like it, take hold and make it so.

We're not going to keep on trying to make bricks without straw, especially when there seem to be few enthusiastic customers for the bricks we do make.

The Seminar is yours to build into a fine, flourishing Department, or let die of inanition.

What about it?

Diagnostic Pointers



Diagnosis of Apoplexy

● Fully half the patients diagnosed as having cerebral hemorrhage are suffering from other conditions (thrombosis, brain tumor, uremia, arteriosclerotic cerebral degeneration, syphilis of the brain, encephalitis, hyperpiesis). Cerebral hemorrhage makes its appearance with startling suddenness, with loss of consciousness, vomiting, occasionally convulsive seizures, and profound paralysis. *Most patients die*, and the outcome is determined by the extent and location of the hemorrhage. Thrombosis of a large vessel may produce similar symptoms.

Cerebral thrombosis has a gradual onset, with progressive sensory and motor phenomena, which may persist in an arrested form or completely disappear in time. Some cases show progression, with mental symptoms and neurologic signs simulating other neurologic states such as tumor, degenerative disease, et cetera.—M. T. MOORE, M.D., in *Penn. Med. J.*, Nov., 1940.

Sulfathiazole and Urinary Calculi

● Sulfathiazole administration may result in the formation of many urinary calculi, without the appearance of albumin or crystals in the urine.—S. A. LOEWENBERG, M.D., in *J.A.M.A.*, Dec. 14, 1940.

Inflamed Eyes

● The inflamed or "red" eye, so commonly seen in general practice, may be due to several types of conjunctivitis, or to iritis or glaucoma. *One-percent zinc sulphate solution promptly clears up the conjunctivitis due to the Morax-Axenfeld bacillus*, which is completely resistant to the use of silver salts. In this condition, there is little congestion of the conjunctiva, but both the angles of the lid show secretion, and the skin is excoriated.

Iritis is characterized by a tender eye, which has little secretion, but shows ciliary congestion and a contracted pupil, which reacts poorly or not at all to light. Atropine solution must be applied to the eye and hot applications used.—A. D. McCANNEL, M.D., in *Jour.-Lancet*, May, 1940.

Vitamin B₂ Deficiency

● Riboflavin (vitamin B₂) deficiency symptoms are: (1) reddened, macerated areas at the angles of the mouth, called cheilosis; (2) linear fissures or lesions of the lips; (3) conjunctivitis, lacrimation, burning and itching of the eyes, and failing vision; (4) sore mouth; and (5) rapid healing after the oral administration of 1 ounce of brewer's yeast or liver extract or 3 mg. of riboflavin daily.—T. D. SPIES, M.D., in *Am. J. Med. Sci.*, Nov., 1940.

Weather Effects

● When the barometric pressure falls, the body tissues take up water and swell; when it rises they give up water and shrink. Suicides are more apt to occur when a storm center approaches; domestic troubles flare up; it is harder to think clearly; even lower animals are more inclined to fight.—Dr. C. A. MILLS, Univ. of Cincinnati Coll. of Med., through *Science News Letter*, Sept. 14, 1940.

Abdominal Distention

● Abdominal distention is often seen with renal colic. Intra-abdominal lesions must be ruled out.—M. L. GOTTLIEB, M.D., in *Med. Rec.*, Nov. 20, 1940.

Slight High Blood Pressure

● In checking on thousands of insurance examinations, performed on apparently healthy persons, it was found that even a slight degree of hypertension increases the death rate. With a given systolic pressure, the mortality rate is higher if the diastolic is high than if it is normal. *A blood pressure of 145/90, at the age of 45, should not be regarded as normal when it is followed by a mortality rate 1½ times the average. Abnormalities which do not appear important to the clinician are indicative of coming trouble.*—PEARCE SHEPHERD, M.D., in *Med. Ann. Dist. Col.*, Nov., 1940.

Diagnosis in Pregnancy

● A lateral roentgenogram is especially helpful in the diagnosis of pregnancy, when it has advanced to the stage that the fetal parts have risen out of the pelvis, and can be seen without being superimposed on the maternal bony parts, as is the case when the anteroposterior view is obtained.—Miss. Valley Med. J., Nov., 1940.

Gynecomastia

● Gynecomastia is a condition of the male breast, usually bilateral, in which there is a general mammary enlargement, corresponding to the normal enlargement of the female breast. It is soft, as a rule, and feels lipomatous. It is a simple hypertrophy of the mammary tissues. *Treatment: Injections of testosterone propionate* (the propionate is used because it has a more enduring effect) result in a gradual decrease in the size of the breasts.—F. E. ADAIR, M.D., in *West. J. Surg., Obstet. & Gynec.*, Nov., 1940.



Thumbnail Therapeutics

Pertussis Vaccine in Asthma

● A series of patients with severe bronchial asthma were treated by an intramuscular injection of 5 cc. of their own blood and 0.5 cc. of pertussis vaccine.* The vaccine injections were repeated at intervals of 2 days, gradually increasing the amount given to 1 cc. Within 48 hours after the first injection of vaccine, attacks stopped or became less severe.—HENRY B. SOKAL, M.D., in *Med. Record*, Nov. 20, 1940.

Blood Plasma Injections

● Blood plasma may be given intravenously, subcutaneously, or intramuscularly, without fear of reaction and without typing. It has been used in premature infants, decreasing their hospital stay, lowering mortality and morbidity, and increasing weight gain. *It is the perfect remedy for surgical emergencies.*—C. S. WHITE, M.D., in *J. South. Med. & Surg.*, Nov., 1940.

Ether Technic

● In giving ether, ask children to count, and count with them. A moistened towel should be secured over the eyes, being careful that the eyelids are well closed. The mask, covered with 12 layers of gauze, is placed and the ether drops started. At first the mask is kept 2 inches from the face; then it is gradually lowered. When well into the first stage, the mask rests on the face and the ether is dropped at the rate of one drop a second. If coughing occurs, remove the mask for a minute; then gradually resume. When well asleep, place a moistened towel about the mask, leaving a round opening, 2 inches in diameter, at the top. A deeply anesthetized patient can be revived quickly by a thorough dilatation of the rectum.—O. O. SMITH, M.D., in *J. Mo. M. A.*, Oct., 1940.

Bee Venom in Arthritis

● Subcutaneous injections of bee venom often relieved the pain of arthritis. Lyovac† was the preparation used, and the initial dose was 0.01 cc., which was rapidly increased to 1.0 cc. during a course of ten injections. Motion returned to many joints.—THEO. GOLDBERG, M.D., in *Miss. Val. Med. J.*, Nov., 1940.

*Biological No. 14, E. R. Squibb & Sons.

†Sharp and Dohme Co.

Pregnancy and Mitral Stenosis

● If every pregnant woman with mitral stenosis had a cesarean section under local anesthesia, few or none would die; but this is usually too radical a course to advise.

If the patient, having a third baby, had the first one without any trouble, but the second was followed by marked shortness of breath and collapse; or if the progress of pregnancy has been accompanied by increasing dyspnea and edema of the feet, a section would seem advisable. If no such history or symptoms are found, apparently the best preparation we can give such a patient is to warn her that each succeeding pregnancy will be more dangerous than the last; to keep her in bed for several weeks before expected delivery; and to give her a maintenance dose of digitalis.—RALPH H. MAJOR, M.D., in *Jour. Omaha Clin. Soc.*, Sept., 1940.

Sulfanilamide in Otitis Media

● When sulfanilamide is used in the treatment of otitis media, and especially if the infection is streptococcal, one should seek a dramatic improvement in 12 hours and a normal temperature and apparently arrested infection in 48 hours, by giving large doses (80 to 120 grains—4.6 to 8 Gm.—daily). If such improvement should not occur, the case should be restudied. Surgery of the mastoid may be indicated.—E. E. N. & T. *Month.*, Dec., 1940.

Quinine in Muscle Cramps

● Painful spasms of muscles of the extremities generally occur in middle-aged and elderly persons, while they are at rest. Quinine sulfate, in the usual doses, benefits such patients.—L. G. HERMANN, M.D., in *J.A.M.A.*, Oct. 19, 1940.

Coramine in Cheyne-Stokes Breathing

● The intravenous injection of Coramine (Ciba) may give dramatic results in the treatment of cheyne-stokes respiration, in heart disease. The oral administration of Coramine results in a slow improvement, over a period of several days.—W. D. STROUD, M.D., in *Ann. Int. Med.*, Sept., 1940.

Vitamin B₁ and "Pep"

● Alertness is increased and the measured capacity for work is almost doubled by the administration of 600 International Units of Vitamin B₁ each day.—Editorial, *J.A.M.A.*, Oct. 5, 1940.



THE DOCTOR'S STUDY

With good books, the point is not to see how many you can get through, but rather how many can get through you.—MORTIMER J. ADLER.

Diabetes Mellitus

Joslin, et al.

THE TREATMENT OF DIABETES MELLITUS. By ELLIOTT P. JOSLIN, A.M., M.D., Sc.D., *Medical Director, George F. Baker Clinic, New England Deaconess Hospital; Clinical Professor of Medicine Emeritus, Harvard Medical School*; HOWARD F. ROOT, M.D., *Instructor in Medicine, Harvard Medical School*; PRISCILLA WHITE, M.D., *Instructor in Pediatrics, Tufts College Medical School*; and ALEXANDER MARBLE, A.M., M.D., *Instructor in Medicine, Harvard Medical School*. Seventh Edition, Thoroughly Revised. Philadelphia: Lea & Febiger. 1930. Price, \$7.50.

"ALL that there is to know about diabetes, told well," should be a subtitle of this book. Joslin and his co-workers have assembled material on every aspect of diabetes, condensed it, and worked it up into an interesting text.

An ophthalmologist, who happened to glance at the book, became fascinated and read a number of chapters. "I've learned more about the effects of diabetes on the eye in an hour, than in the past several years," he said.

This volume is valuable as a reference work, even to the physician who never treats a diabetic patient, because diabetes, today, involves the practice of every specialty: the differential diagnosis of many medical and surgical conditions, and proper pre- and postoperative care. It must not be forgotten that there are 600,000 diabetics in this country today, who require frequent contact with their physicians.

Full directions are given for performing urine and blood tests, and for ruling out false positive tests.

Methods of Treatment

Clendening and Hashinger

METHODS OF TREATMENT. By LOGAN CLENDENING, M.D., *Clinical Professor of Medicine, Medical Department of the University of Kansas; Attending Physician, University of Kansas Hospitals*; and E. H. HASHINGER, A.B., M.D., *Clinical Professor of Medicine, University of Kansas Medical Department; Attending Physician, St. Luke's Hospital, Kansas City*. With Chapters on Special Subjects by 12 Authorities. Seventh Edition. St. Louis: The C. V. Mosby Company. 1931. Price, \$10.00.

CLENDENING'S effort has always been to collect each differing type of treatment into one book, so that the practitioner may find exact details of technic, which are so sadly lacking in our texts today. This end has been well achieved in previous editions, and the 1931 volume is

completely up to date, including the recent work on vitamin K, Dilantin, heparin, aluminum hydroxide, endocrine therapy, and vitamin therapy.

The section on local anesthesia is commendably done, including the symptoms of procaine poisoning; but no mention is made of the treatment of painful conditions by procaine, Nupercaine or Eucupin injections.

The section on physical therapy is well written. For once, massage is actively recommended, instead of the usual passive acquiescence. The comments on relief of thoracic and abdominal pains by massage of inflamed back muscles are to the point; physicians who realize them will understand why quacks cure, when they do not, in these cases of referred pain.

Neoplastic Disease

Ewing

NEOPLASTIC DISEASE: A Treatise on Tumors. By JAMES EWING, A.M., M.D., Sc.D., LL.D., *Professor of Oncology at Cornell University Medical College, New York City; Consulting Pathologist to Memorial Hospital*. Fourth Edition, revised and enlarged; 1,160 Pages and 581 Illustrations. Philadelphia and London: W. B. Saunders Company. 1930. Price, \$14.00.

THIS large compendium contains all that is known of the nature of tumors in the human being, their course and structure. The author discusses tumors of each organ separately, so that one is not misled into the error of considering all sarcomas, for example, as being similar, without regard to the organ from which they spring.

Many pertinent clinical facts are given, as well as complete gross and microscopic pathologic studies. The relation between histologic structure and clinical course is emphasized.

Sex in Marriage

Groves

SEX IN MARRIAGE. By ERNEST R. GROVES and GLADYS HOAGLAND GROVES, Authors of "Parents and Children," "Sex in Childhood," etc. New York: Emerson Books, Inc. 1930. Price, \$2.00.

HERE is a commonsense discussion, in lay terms, of what it takes to bring sex happiness in marriage. It is written so well and in such a manner that the most esthetic person cannot be offended, and the most vulgar will not be interested.

It may be warmly recommended for those who are

having trouble in adapting themselves sexually, and for the prospective or newly married couple. The advice given on compromises between partners whose sexual training or desires differ widely should be read by every married person, as it is exceedingly rare to have two persons match each other exactly. The suggestion is made that if engaged persons do not feel a definite sex attraction or interest, it is best to break off the engagement.

Ernest R. Groves is professor of sociology at North Carolina University, and conducts courses in marriage and the family at that institution and at Duke University.

Intestinal Irrigation Waddington

SCIENTIFIC INTESTINAL IRRIGATION AND ADJUVANT THERAPY. By JOSEPH E. G. WADDINGTON, M.D., C.M. (Bennet), Life Member, American Congress of Physical Therapy; Vice President, Board of Examiners in Massage, Board of Health, Detroit, Michigan; Author of "Practical Index to Electro and Photo-therapy"; etc. With a Foreword by W. KERR RUSSELL, M.D., Physician-in-charge, Physiotherapy Department, National Temperance Hospital, London. 35 Illustrations. Chicago: The Bryan Publishers. 1940. Price, \$5.00.

AS ONE who formerly condemned the colonic irrigators as unscientific, it is only fair to say that my mind has been changed, against its will, by the startling successes achieved after all traditional methods of treatment have failed. Despite the fact that toxemia from the bowel cannot be proved in the laboratory, clinical results tell the tale.

The author has written on the use of colon irrigations, technic and contra-indications, laxatives, physical therapy, and dietetics. Much practical information is presented; the casual physician's mind is disabused of the idea that a large enema is a colonic irrigation; and the need for study of the material that is flushed out of the bowel is emphasized.

It is to be regretted that the material was not broken up into small, convenient sections, so subheaded that information may be quickly found, and that the author did not present his own technic, in brief, step-by-step form, as many failures with colonic therapy have resulted from hit-or-miss methods.

Hundreds of authorities, regardless of their opinion, are quoted, to show both sides of debated points. The author completely covers adjuvant methods and gives much sound advice on the use of laxatives, vitamins, and foofies. The physician who retains an open mind will do well to study this work.

R.L.G.

New International Clinics Piersol

THE NEW INTERNATIONAL CLINICS: Clinics, Original Contributions, and Evaluated Reviews of Current Advances. Edited by GEORGE MORRIS PIERSOL, M.D., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, Philadelphia. Volume II: New Series Three. Philadelphia, Montreal, New York: J. B. Lippincott Company. 1940. Price, \$3.00 current year; \$5.00 back years.

THE International Clinics present a well balanced fare for the medically and surgically minded physicians. "An Early Sign of Left-Side Heart Failure" is the title of a thought-provoking article by Digilio and Pescatore, which recalls the dictum of MacKenzie about heart disease ("Throw away your stethoscope and look for early signs of cardiac failure").

It is easy to forget that the patient with prostatitis usually has an associated seminal vesiculitis. Merricks gives the modern viewpoint on the diagnosis and treatment of seminal vesicle infection, together with beautiful reproductions of vesicle roentgenograms. Catheterization of the vesicles through the ejaculatory ducts reveals that many cases of masculine sterility are due to stenosis of the ducts, and not to stenosis of the vas, as formerly thought.

A series of clinics is presented by members of the faculty of Rush Medical College and edited by Vernon C. David, professor of surgery, including such subjects as surgical treatment of carcinoma, treatment of pain, jaundice in the newborn, glandular treatment of male hypogonadism, and pernicious anemia.

Infectious Diseases Harries and Mitman

CLINICAL PRACTICE IN INFECTIOUS DISEASES, For Students, Practitioners, and Medical Officers. By E. H. R. HARRIES, M.D. (Lond.), M.R.C.P., D.P.H., Medical Superintendent, North-Eastern Hospital (London County Council), etc.; and M. MITMAN, M.D. (Lond.), M.R.C.P., D.P.H., D.E.R.E., Medical Superintendent, River Hospitals, etc. With a Foreword by W. ALLEN DALEY, M.D. (Lond.), F.R.C.P., Medical Officer of Health, London County Council. A William Wood Book. Baltimore: The Williams and Wilkins Company. 1940. Price, \$6.00.

FOR every clinician who has been puzzled by a rash or dubious concerning the diagnosis of a fever or infectious disease (and who has not?), this book is commended. Scarlet fever, measles, mumps, rubella, pertussis, erysipelas, smallpox, chickenpox, meningococcal and epidemic meningitis, infantile paralysis, enteritis and dysentery, undulant fever, influenza, and tetanus are considered.

Many pages are devoted to the diagnosis of an unknown infectious disease. The throat and ear appearances, the rash, the type of fever, important symptoms, and relevant laboratory tests are given, in a brief, usable manner.

The various diseases are then individually presented. Newer methods of diagnosis and treatment are written from personal experience, not from the literature.

Bacillary and Rickettsial Infections Holmes

BACILLARY AND RICKETTSIAL INFECTIONS: Acute and Chronic; A Textbook. Black Death to White Plague. By WILLIAM H. HOLMES, Professor of Medicine, Northwestern University Medical School; Chairman, Department of Medicine, Passavant Memorial Hospital, Chicago. New York: The Macmillan Company. 1940. Price \$6.00.

IT IS to be hoped that, by labeling this unusual work a textbook, the author has not prevented it from being enjoyed widely by students and practitioners of medicine.

In an informal, almost "storybook" manner, he presents the present-day accomplishments and historical background concerning tuberculosis, pertussis, influenza, diphtheria, tetanus, gas gangrene, typhoid fever, the dysenteries, undulant fever, tularemia, Rocky Mountain spotted fever, and other rare diseases. The subjects covered make up enough material for one-quarter of the usual medical curriculum.

The author writes well and interlards his text with learned and witty quotations. He sketches clearly the rise of epidemics; their influence on civilizations (often greater than that of the wars we struggled so to learn in school); the different workers in the field of medicine; and modern knowledge of each disease, including diagnosis and treatment. This type of writing is enjoyable to read; it educates the physician, rather than stuffs him with facts to memorize. At the same time, it is well worthwhile and practical for those who are interested only in the usable.

Autobiography Hugh Young

HUGH YOUNG: A SURGEON'S AUTOBIOGRAPHY. With 100 Drawings by WILLIAM P. DIDUCH and three Color Plates. New York: Harcourt, Brace & Co. 1940. Price, \$5.00.

FEW, if any, living medical men have had a more eventful, picturesque, and successful life than that of Hugh Young, or have endeared themselves to a larger number or greater variety of people, and in this book he tells about it in his own breezy and inimitable way.

Born in Texas, the son of the youngest brigadier general in the Confederate army, his boyhood days were spent on a ranch. When he decided to study medicine, he took three degrees from the University of Virginia in four years; then on to Johns Hopkins, where his remarkable career began and was consummated.

Because the largest part of his thought and effort has been spent in the development of the specialty of urology, he has set a precedent in biographies for the laity by including more than 100 pages of discussion of the instruments and technics which he has perfected, illustrated with more than 100 anatomic and surgical drawings and photographs

such as have rarely, if ever, appeared except in professional textbooks.

The chapters dealing with his relationships with many notable people (including prominently, of course, "Diamond Jim" Brady, who financed the great Institute where most of his work has been done); with his important activities with the A.E.F. during the World War; with his wide interests and efforts in many directions; and with his hobbies and recreations, are delightfully informal and informing.

This story of one of the most engaging and intriguing personalities in contemporary medicine makes a book which can be taken up for ten minutes, an hour, or a long evening, and will make the reader forget everything else, for the time.

Short-Wave Therapy

Holzer and Weissenberg

THE FOUNDATIONS OF SHORT WAVE THERAPY: Physics, Technics, Indications: An Introduction to the Physico-Technical Principles and Medical Applications of Short Electric Waves for Physicians and Biologists. *Physics and Technics* by WOLFGANG HOLZER, DR. ING.; *Assistant, Physiological Institute, University of Vienna; Medical Applications* by EUGENE WEISSENBERG, DR. MED.; *Medical Superintendent of the Short-Wave Section, University Clinic for Nervous and Mental Diseases in Vienna.* 43 Illustrations: Ten Tables. New York: Chemical Publishing Company. 1940. Price, \$5.00.

FROM the technical standpoint the book is interesting, inasmuch as 155 pages are devoted to such basic scientific data as the action of electrical oscillations, energy absorption, and measurement of wave-lengths. Tables and illustrations complete the discussion of the physics of short-wave therapy.

The medical indications for short-wave treatment are briefly presented in a 52 page section. Many unusual applications, such as for eczema, are mentioned, but without giving complete enough data so that the clinician would be able to treat such patients. The whole subject of rheumatic diseases is dismissed in a page and a half.

Pelvic Pathology

Novak

GYNECOLOGICAL AND OBSTETRICAL PATHOLOGY, with Clinical and Endocrine Relations. By EMIL NOVAK, A.B., M.D., D.Sc. (Hon.), F.A.C.S., Associate in Gynecology, The Johns Hopkins Medical School; Gynecologist, Bon Secours and St. Agnes Hospitals, Baltimore, et cetera. 427 Illustrations. Philadelphia and London: W. B. Saunders Company. 1940. Price, \$7.50.

FOR the clinician who wishes to know more about pelvic pathology, this book, written by a clinician, is recommended. Lesions are discussed in their clinical and endocrine relationships before their pathological makeup is described.

The author has avoided the usual impersonal heavily-referenced method of writing that makes so much of the present-day medical literature neither literature nor instructive. Bibliographies are given, for those who wish to pursue a subject further.

His discussion on the cervix and precancerous states is illuminating.

Anesthesia

Nosworthy

THE THEORY AND PRACTICE OF ANESTHESIA. By M. D. NOSWORTHY, M.A., M.D., B.Ch. (CANTAB.), Anesthetist to Westminster Hospital, etc., with a Foreword by I. W. MAGILL, M.B., B.Ch. (BELFAST), Senior Anesthetist to Westminster Hospital, etc. 35 Illustrations. New York: Chemical Publishing Company. 1940. Price, \$1.25.

THIS is a short text on practical methods of inhalation anesthesia. The author's experience in teaching students is apparent from the type of material included in his discussion of the "little" points that make for a smooth anesthesia. Nothing is taken for granted or considered too unimportant to present.

A chapter of spinal anesthesia gives the technics of percaïne and stovaine subarachnoid block.

The student and occasional anesthetist will find this

book valuable. All will do well to read the discussion on tonsillectomy anesthesia and the poor results of too light an anesthetic for this operation.

The Sex Question

Hamilton

REPORT ON THE SEX QUESTION, By the Swedish Population Commission. *Translated and Edited by VIRGINIA CLAY HAMILTON, M.D. Published for the National Committee on Maternal Health, Inc., by The Williams and Wilkins Company, Baltimore.* 1940. Price, \$2.00.

THIS short monograph is concerned with the contraceptive and sex instruction phase of the studies carried out by the Swedish Population Commission.

In Sweden, many couples live together without concealment and on a permanent basis, without going through the formality of marriage at the time. This practice is not to be condemned, because such unions are different from the temporary, clandestine affairs based on sex alone.

The condom is strongly indorsed, as the best method of preventing venereal infection and as a good contraceptive safeguard. One statement seems a bit optimistic, in view of similar experiences in this country, "The condom may really be said to be too costly. If . . . contraceptives are sold by the pharmacists, we shall have reason to expect even the condom to be cheap." It has been shown here that the margin of profit on condoms is 500 percent and even higher, and that the unconscientious pharmacist may dispense poor quality condoms at a high price.

The Population Commission believe that by proper education and instruction, couples may be encouraged to have larger families. The book is thought-provoking.

Materia Medica, Toxicology, and Pharmacology

Davison

SYNOPSIS OF MATERIA MEDICA, TOXICOLOGY, AND PHARMACOLOGY. By F. R. DAVISON, B.A., M.Sc., Ph.D., M.B., Assistant Professor of Pharmacology, School of Medicine, University of Arkansas, Little Rock, St. Louis: The C. V. Mosby Company. 1940. Price, \$5.00.

THE student and physician will welcome this manual, which provides the important facts about each drug and its uses. Enough pharmacology is given to insure that a drug is not used empirically and that its true value is known. Toxicology is discussed and the use of various antidotes presented in tabulated form, for quick reference. Prescription writing is made the subject of one section.

In line with current practice, the book is brief and usable.

New International Clinics

Piersol

THE NEW INTERNATIONAL CLINICS. Edited by GEORGE MORRIS PIERSOL, M.D., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania. Volume III; New Series Three. Philadelphia, Montreal, New York: J. B. Lippincott Company. 1940. Price, \$3.00, current year; \$5.00, back years.

THE physician will wish to read the contributions on rectal pain, sex changes, sedimentation rate, peptic ulcer diagnosis and symptoms, gall-stone disease, pulmonary infarction, treatment of bleeding peptic ulcer, treatment of pneumococcus bacteremia with sulfapyridine, convulsions following the withdrawal of sedative medication, and hyperparathyroidism.

The surgeon will wish to read the articles concerning the treatment of cryptorchidism, surgical treatment of peptic ulcer, accidental injuries in office practice, urogenital tuberculosis, and surgical treatment of gallstones.

For the obstetrically-minded physician, these articles are furnished: Ten years' progress in obstetric analgesia, pelvic tumors complicating pregnancy, and the use of sulfonamide compounds in obstetric and gynecologic practice.

Many of the papers are made up by the Cornell University Medical School faculty members, and edited by Russell L. Cecil.